

Hanford Mission Integration Solutions



Monthly Contract Performance Report April 2021

R. E. Wilkinson
President & General Manager

U.S. Department of Energy
Contract No. 89303320DEM000031



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P.O. Box 943
Richland, Washington 99352

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1.0 EXECUTIVE SUMMARY

Hanford Mission Integration Solutions (HMIS) continued to provide direct support to the U.S. Department of Energy (DOE) and its contractors with cost-effective infrastructure and Site services that are integral and necessary to accomplish the environmental cleanup mission through open and proactive communication, collaboration, and cooperation between Hanford Site customers (DOE Offices and Other Hanford Contractors [OHC]). Unless otherwise noted, all data provided is through April 25, 2021.

HMIS continued to support Hanford Site needs related to COVID-19, including dashboard tracking, Hanford app notifications, cleaning and sanitization, CIB meetings, messaging and more. To help ensure a smooth transition and continuity of operations for the new Hanford Laboratory Management and Integration team, we completed necessary Inter-Contractor Work Orders in early April and provided the HLMI team the ability to utilize HMIS WARNS to send notifications to their employees.

Notable in April are our ongoing safety programs, small business focus and support for critical infrastructure projects. We continued to exceed DOE safety goals and did not experience any recordable injuries. We also held our first (virtual) HMIS-wide Presidents' Zero Accident Council meeting. Our cumulative small business statistics illustrate that we continue to meet and exceed our small business subcontracting goals in support of local economic development. In support of both WRPS and CPCCo, our team successfully completed several critical connections to the Hanford sanitary water and sanitary sewer systems. Several crews also supported lighting upgrades at the AP-Farm complex. Several planned electrical outages allowed for the successful tie-ins of newly installed electrical systems as part of upgrades of the 200 West electrical distribution system.

Several actions also highlight HMIS' commitment to protecting the physical and digital boundaries of the Hanford Site. Hanford Patrol personnel successfully completed their semi-annual weapons qualifications while the Hanford Fire Department continued preparations for wildland fire season. We performed data center upgrades during a successful information technology disaster recovery exercise and also deployed the Safe Links feature in Office 365 to scan links in inbound email messages.

2.0 KEY ACCOMPLISHMENTS

- HMIS has invoiced \$60,597,795 as of April 30, 2021 – to DOE and OHCs.
- HMIS has received \$28,626,227 from DOE for invoice payments as of April 30, 2021.
- Continued closing Hanford Life-Cycle Cleanup Baseline (HLCCB) scope gaps and pricing capability. Coordinating with DOE regarding disposition narrative based on recently implemented baseline change request.
- Continued revisions to the HLCCB Change Control charters (HCAB, ESAAB-E), and evaluated potential changes to the DOE Decision Management Procedure. Continued testing of the HLANBCR change control module. Production implementation expected at the end of May.

- The Hanford Advisory Board (HAB) annual membership packet was formally signed by DOE Site Manager Brian Vance and submitted to Headquarters April 22. HMIS played an integral part in creating the packets for all 71 proposed board members. The packet is expected to be approved by Headquarters by June 30.
- HMIS staff worked with DOE in assuring a site visit coordinated by the Waste Treatment Plant lined up with site tour standards and protocols. Five representatives from the Washington State Department of Health participated in a walkthrough of the Waste Treatment Plant. HMIS coordinated with BNI representatives to help manage badging and other logistics and sent tour notifications to Hanford leadership and contractor staff as needed.
- Supply Chain Management Center ‘Face-to-Face’ Meeting: HMIS Procurement representatives participated in the Supply Chain Management Center (SCMC) ‘Face-to-Face’ spring 2021 virtual meeting held on April 13. The annual meeting includes attendees from multiple DOE Environmental Management sites across the nation that participate with SCMC and their strategic sourcing opportunities. Discussions and presentations included mid-year performance to date, five year timeline discussion and more near term upcoming agreement awards.
- Bus Admin & Integration and Field Project Controls coordinated and submitted an IIP and RPIP Update on April 20, 2021 to incorporate changes as received in CBAG Rev 2. HMIS anticipates another IIP update submittal after discussions in May regarding funding reductions and the receipt of a CBAG Rev.3.
- W&SU personnel have worked successfully with WRPS and CPCCo to complete connections to our Sanitary Water and Sanitary Sewer systems. In support of A/AX project, four support trailers were connected to our sanitary water and sanitary sewer systems. In support of IDF, two connections were made to our Sanitary Water line. Field walk downs and Teams Meetings with OHC’s have been productive during the tie-in process to resolve any issues that arose and keep lines of communication open.



IDF 4th Street Tie-in

- Traffic Management successfully prepared 23 containers for shipment to Alaska in support of the Radiological Assistance Program (RAP) Team, which included three Type “A”

radioactive drums. This was the first shipment of this kind since the start of the pandemic. Additionally, this was the largest shipment made on behalf of the RAP Team.

- HMIS Interface Management and HMIS Finance worked with the Hanford Laboratory Management and Integration (HLMI) Contracts Department in completing 28 new Inter-Contractor Work Orders (ICWOs) prior to HLMI's contract start date of April 15, 2021. Having these ICWOs in place ensures that HLMI will receive essential HMIS support services beginning on Day 1 of their prime contract for managing and operating the 222-S Laboratory.
- Effectively collaborated with site contractors to address the large bow wave in training that was forecasted this summer. This bow wave was created due to the HAMMER COVID-19 shutdown and large number of core training classes conducted upon restart. Training coordinators pulled students back into March, April, and May to level out training due dates.
- In April, Asset Disposition (Excess) processed the last 2 Cranes from a lot of 5 that were received from Crane & Rigging between August and November of last year. The first 3 Cranes were allocated to Idaho, Louisiana and Florida State Agencies for Surplus Property. The remaining 2 Cranes -The Pawling & Harnischfeger CNT650 and Grove TMS740 truck mounted cranes that were not allocated during the screening process, were cleared and released from the berm (equipment laydown yard north of 2355 Stevens Drive on the former site of the old Central Stores building). The cranes were sold the week of April 19, 2021 through the GSA Auctions.



3.0 MAJOR ISSUES

Program Services and Support: Refer to Section A of this report for Program Services and Support specific major issues.

Reliability Projects: Refer to Section B of this report for project-specific major issues.

4.0 HMIS SAFETY PERFORMANCE

HMIS continues to focus on integrating and implementing safety programs in all program and project areas. In April, we experienced zero Recordable Injuries, and there were four first aids. HMIS continues to exceed DOE's targets for both Total Recordable Case (TRC) rate and Days Away, Restricted, or Transferred (DART) case rate. DOE's TRC target rate is set at 1.1 and the DOE target rate for DART is 0.6. To date, HMIS' rates are 0.5 and 0.5, respectively.

EXECUTIVE SUMMARY

HMIS communicates frequently with our team through weekly Safety Starts and periodic safety bulletins. In April, weekly Safety Starts included: Distracted Driving Awareness Month, Pedestrian Safety, Earth Day, Every Day and National Work Zone Safety Awareness Week. With the changing season, HMIS has also been communicating to the work teams the importance of maintaining hydration to avoid heat stress related injuries.

HMIS continually reviews our first aid cases and analyze this leading indicator to ensure our focus on injury prevention is targeted to events and activities that producing the first aid injuries. This information is shared at President's Zero Accident Council and further disseminated through the HMIS Employee Zero Accident Council Structure to ensure employees are updated and aware of the types of injuries and incidents occurring across the company. In addition, injury and vehicle accident statistics are tracked for each work group allowing individual work groups to focus on their specific events for lessons learned opportunities.

The first HMIS wide President's Zero Accident Council meeting was held virtually on April 15.

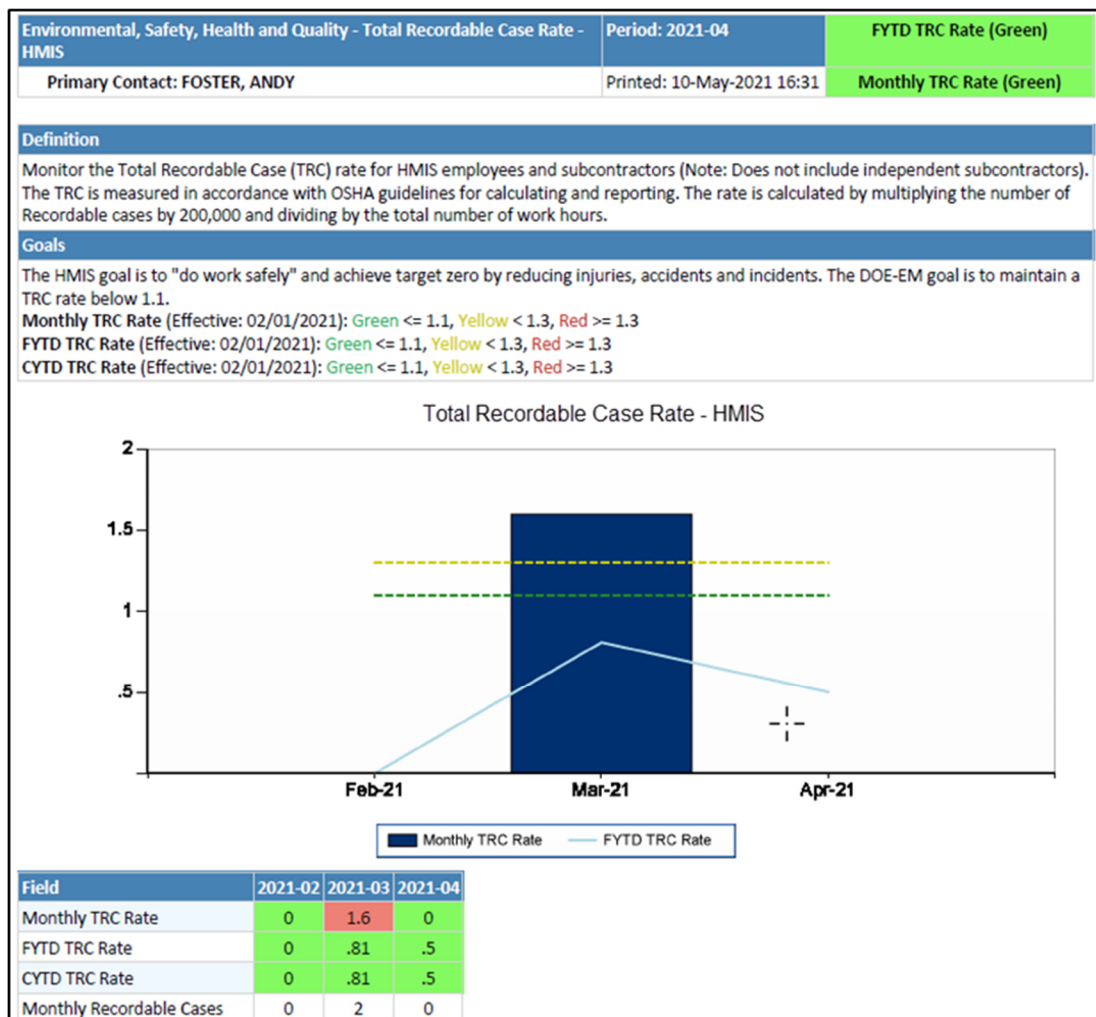


Figure 1. Total Recordable Case Rate (TRC)

EXECUTIVE SUMMARY

Monitor the TRC rate for HMIS employees and subcontractors (Note: Does not include independent subcontractors). The TRC is measured in accordance with OSHA guidelines for calculating and reporting. The rate is calculated by multiplying the number of Recordable cases by 200,000 and dividing by the total number of work hours.

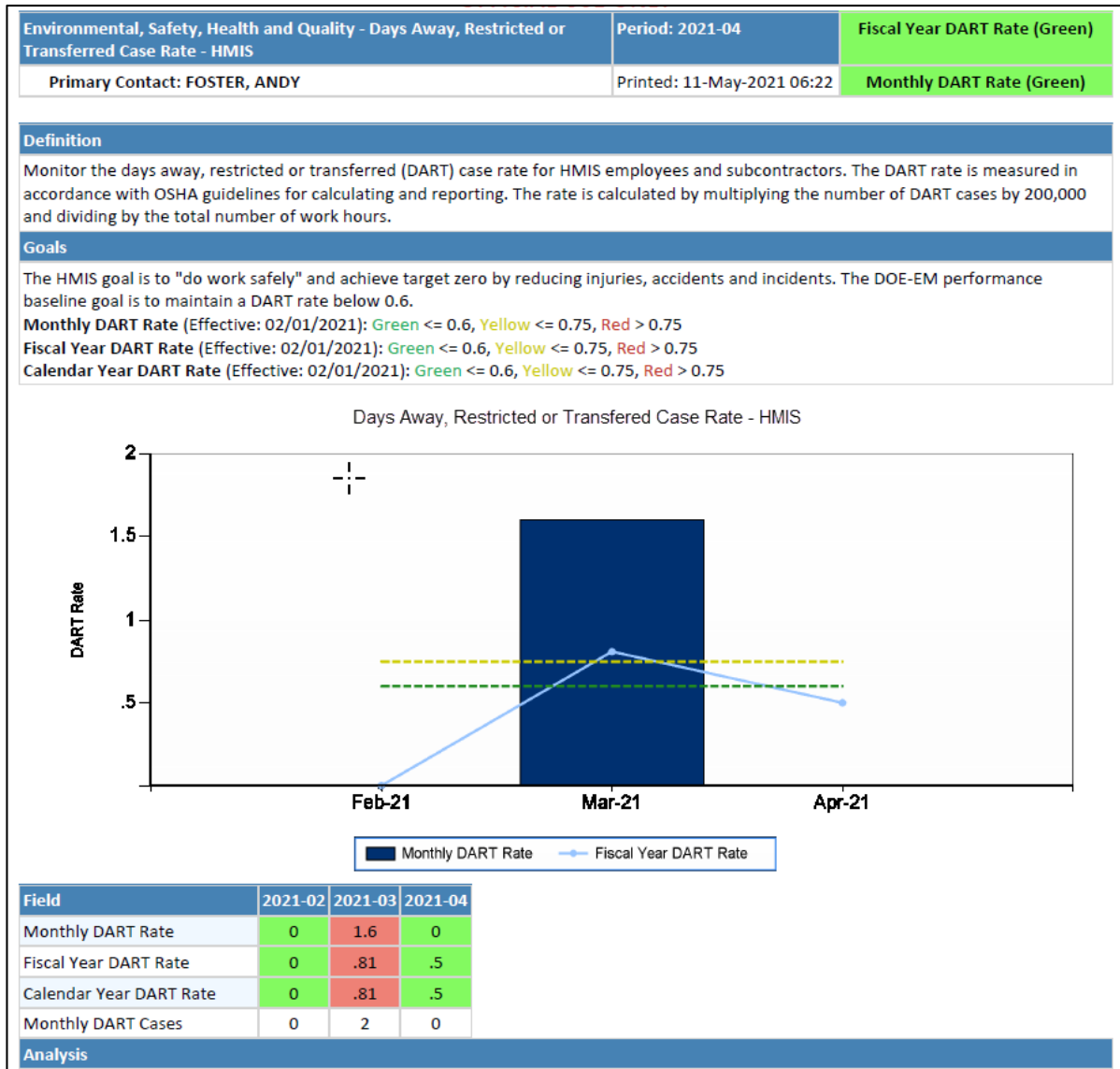


Figure 2. Days Away, Restricted, Transferred (DART)

Monitor the DART Case rate for HMIS employees and subcontractors (Note: Does not include independent subcontractors). The DART is measured in accordance with OSHA guidelines for calculating and reporting. The rate is calculated by multiplying the number of DART cases by 200,000 and dividing by the total number of work hours.

5.0 EARNED VALUE MANAGEMENT

Table 1. HMIS Schedule and Cost Performance

	CURRENT PERIOD					CUMULATIVE TO DATE					AT COMPLETION		
	BUDGETED COST		ACTUAL COST	VARIANCE		BUDGETED COST		ACTUAL COST	VARIANCE		BAC	EAC	VARIANCE
	BCWS	BCWP	ACWP	SCHEDULE	COST	BCWS	BCWP	ACWP	SCHEDULE	COST			
CLIN Data for April													
0001 - Contract Transition	\$0	\$0	(\$15)	\$0	\$15	\$6,405	\$6,405	\$5,641	\$0	\$765	\$6,405	\$5,641	\$765
0003 - Legacy Benefit Plans & Legacy Workers' Comp	\$4,292	\$4,292	\$1,183	\$0	\$3,109	\$10,986	\$10,986	\$6,010	\$0	\$4,976	\$448,037	\$441,277	\$6,760
0004 - Infrastructure & Site Services	\$34,180	\$32,917	\$33,546	(\$1,263)	(\$629)	\$85,505	\$80,573	\$79,133	(\$4,932)	\$1,441	\$2,599,799	\$2,617,121	(\$17,322)
0005 - DOE Small Business Procure Pre-Award Support	\$24	\$24	\$0	\$0	\$24	\$43	\$43	\$0	\$0	\$43	\$2,419	\$2,409	\$10
0007 - Infrastructure Reliability Projects	\$1,715	\$1,379	\$1,654	(\$335)	(\$274)	\$4,173	\$4,246	\$4,597	\$73	(\$351)	\$361,488	\$359,710	\$1,778
0008 - DOE Small Biz Pro Post-Award Supp & Other DDWS	\$583	\$583	\$314	\$0	\$269	\$1,493	\$1,493	\$1,092	\$0	\$401	\$210,502	\$211,155	(\$652)
Undistributed Budget (UB)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$215,003	\$215,003	\$0
Management Reserve (MR)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Grand Total	\$40,794	\$39,196	\$36,682	(\$1,598)	\$2,514	\$108,604	\$103,746	\$96,472	(\$4,859)	\$7,274	\$3,843,654	\$3,852,315	(\$8,661)

Note: \$ in thousands

Performance Summary

The HMIS contract went operational on January 25, 2021.

Cost Variance Analysis: The CM favorable CV of \$2,514K is primarily due to:

- Legacy Benefit Plans & Legacy Workers' Compensation timing of invoices due to contract startup and transitioning of plans from prior entity to HMIS.

Schedule Variance Analysis: The CM unfavorable SV of (\$1,598K) is primarily due to:

- L-897, Central Plateau Water Treatment Facility membrane procurement award being delayed. The first milestone payment was planned to occur in the current period. A BCR is in progress to re-plan this scope of work. (-\$1,126k)
- L-895, Fire Protection Infrastructure for PRW A/E services subcontract delayed award which is impacting ongoing construction and procedure scope. The A/E services subcontract was not novated at transition from MSA to HMIS and a new procurement solicitation is underway. (-\$187k)

Variance at Completion: The unfavorable VAC is primarily due to:

- HMIS material differences (MDs) that were identified during the due diligence process. HMIS submitted Contract Transition Deliverable CTD0004, "Listing of Material Differences and Pre-Existing Conditions" to RL on January 22, 2021. Also contributing to the unfavorable VAC are scope pending future BCRs (~\$7M).

6.0 FUNDS ANALYSIS

Table 2. HMIS Fiscal Year 2021 Funds vs. Fiscal Year Spend Plan

FY 2021 IIP Performance to Date Status through April FY 2021 (\$000)											
CLIN	Fund Source	IIP FYTD Perf	FYTD ACWP	Spending Variance	* Funds Received	Remaining Available Funds	** RL Expected Funding CBAG Rev 2	Total Outlook	HMIS Uncosted Balance	Carryover / Hold Backs	Unencum Balance
CLIN 4	SWS and RL-0201 Fee	49,787.8	50,526.3	(738.5)	91,500.0	40,973.7	165,029.4	160,974.4	4,055.0	2,340.1	1,714.9
CLIN 4	RL-0020 (SES, IM, DOE Serv, Fee)	20,547.0	19,903.7	643.3	47,220.0	27,316.3	75,727.6	60,233.7	15,493.9	11,341.3	4,152.6
CLIN 4	RL-0020 (RP)	163.6	89.7	73.9	523.5	433.8	2,034.0	1,743.3	290.7	243.3	47.4
CLIN 4	RL-0201 (RP)	3,991.9	3,946.7	45.2	25,332.0	21,385.3	51,772.7	21,880.2	29,892.5	20,692.5	9,200.0
CLIN 4	RL-0201 (HAMMER)	2,273.1	2,122.7	150.4	6,500.0	4,377.3	8,664.7	7,131.7	1,533.0	1,533.0	-
CLIN 4	RL-0201 (COVID, Inventory, DOE Serv)	1,369.4	1,183.2	186.2	8,710.0	7,526.8	7,064.0	6,027.5	1,036.5	1,036.5	-
CLIN 4	ORP-14, 60, PD - ORP Services	64.9	15.0	49.9	227.2	212.2	357.0	281.1	75.9	75.9	-
CLIN 5	RL-0201 (Small Business, Fee)			-	90.0	90.0	139.0	139.0	-	-	-
CLIN 5	RL-0201 (Fee)			-			11.0	7.7	3.3	3.3	-
CLIN 6	RL-0201 (Fee)			-		-	3,829.0	4,443.9	(614.9)		(614.9)
CLIN 7	RL-0020 (RP)	248.7	335.2	(86.5)	400.0	64.8	491.3	402.1	89.2	89.2	-
CLIN 7	RL-0201 (RP, Fee)	4,090.8	4,261.8	(171.0)	7,668.8	3,407.0	24,135.6	15,890.1	8,245.5	8,245.5	-
	TOTAL	82,537.2	82,384.3	152.9	188,171.5	105,787.2	339,255.3	279,154.7	60,100.6	45,600.6	14,500.0

* Funds received through Contract P00066 dated April 29, 2021

** RL Expected Funding thru CBAG Rev 2 - Pending approval of Integrated Investment Portfolio. Further reductions to be identified by DOE-RL in CBAG Rev 3. These reductions of \$14.5M have been identified in the Outlook and Hold Backs.

The remaining uncosted balance will fund SWS through June 30, 2021 and RL-0020 through August 25, 2021

Excludes CLIN 8 DOE Directed Work Scope (DDWS) (non-PMB scope)

Performance Summary

The current Integrated Investment Portfolio (IIP) was submitted to DOE-RL April 20, 2021 and based upon CBAG Rev 2. Since then additional potential reductions are in process including: RL-0020 (\$4.2M), SWS (\$1.1M), RL-0201 RP (\$9.2M) - Total (\$14.5M) - Awaiting formal DOE-RL guidance. These have been included in the Outlook, Carryover, and Hold Backs.

Cost Variance Analysis:

The FYTD variance is primarily due to two corrected accruals: Environmental had \$1,218K over-accrued in Preliminary cost that was removed before Final cost. This was MSA cost, but the HMIS accrual system (VAIM) was used for the first time this month. The vendor's accrual included MSA and HMIS, which was not realized until after Preliminary cost ran.

Variance at Completion:

The \$60.1M Variance at Completion is primarily due to \$19.7M in RL-0201 for L-612, 230kV Transmission System Reconditioning and Sustainability Repairs that is being held back pending DOE-RL direction and is funding specifically held for Project L-612. Encumbered Carry scope is \$11.1M and will complete in FY22 (Reliability Project \$9.1M, HAMMER \$1.5M, General Supplies Inventory \$.5M). The \$15.5M variance for RL-0020 is primarily due to excess funding that will be utilized for a continuing resolution into FY22. The remainder is funding held for reserves and potential funding reductions.

EXECUTIVE SUMMARY

The Direct Cost Adder (DCA) collects the cost of centralized management, support from others, craft indirect time, and non-labor cost such as training and facilities. These costs are distributed via a rate on direct labor. Usage-Based Services (UBS) are services liquidated to customers (internal and external). The UBS cost is associated with a service and distributed on a unit rate to the customer based upon requests (“pay by the drink”).

Table 3. Usage-Based Services/Direct Cost Adder Summary (Dollars in Thousands)

Account Description	Fiscal Year To Date April FY21					FY21 HMIS Fiscal Year End			
	(Budget) Budgeted Cost of Work Scheduled (BCWS)	(Actuals) Actual Cost of Work Performed (ACWP)	Cost Variance	Liquidation	Liquidation (Over) / Under	Budget At Completion (BAC)	Outlook	Forecasted Liquidation	Forecasted Liquidation (Over) / Under
Direct Cost Adder (DCA)									
Software Services (4001.09.06.01.01)	2,020.4	695.7	1,324.7	(853.8)	(158.1)	5,525.9	1,998.4	(2,394.8)	(396.5)
Records Mgmt (4001.09.06.07.01)	456.4	430.8	25.6	(346.1)	84.7	1,248.3	1,102.5	(970.8)	131.7
Janitorial Services (4001.09.08.02.02)	460.2	495.0	(34.7)	(570.7)	(75.7)	1,258.8	1,393.8	(1,496.4)	(102.6)
Maintenance (4001.09.08.02.01)	1,857.5	2,852.6	(995.1)	(1,870.6)	982.0	5,080.4	7,423.1	(6,607.0)	816.0
Motor Carrier (4001.09.02.01.01)	1,365.9	1,323.4	42.5	(1,366.3)	(42.9)	3,735.8	4,186.0	(4,204.6)	(18.7)
Total Direct Cost Adder - Total	6,160.4	5,797.5	362.9	(5,007.4)	790.1	16,849.2	16,103.7	(15,673.7)	430.0
Usage Based Service									
Dosimetry (4001.09.10.08.01)	1,198.8	1,352.1	(153.3)	(1,261.3)	90.8	3,278.9	4,020.8	(4,059.8)	(39.0)
Training (4001.09.05.01.01)	3,235.4	4,680.1	(1,444.7)	(5,200.5)	(520.4)	8,849.1	12,471.4	(12,670.7)	(199.3)
Hanford Rad Instrumentation Prog (4001.09.10.08.02)	980.9	709.1	271.8	(902.9)	(193.8)	2,682.7	2,923.3	(2,948.7)	(25.5)
Information Technology Services (4001.09.06.03)	7,443.0	5,749.6	1,693.4	(8,573.6)	(2,824.0)	20,344.6	23,991.8	(23,636.8)	355.0
Work Management (4001.09.08.02.04/05)	95.9	168.6	(72.7)	(198.1)	(29.5)	262.3	539.0	(539.0)	0.0
Occupancy Lease (4001.09.08.02.03.04)	1,006.9	1,584.2	(577.3)	(1,241.1)	343.1	2,754.0	3,508.7	(3,234.5)	274.2
Occupancy Gov't (4001.09.08.02.03.05)	1,050.1	1,198.1	(148.0)	(1,350.6)	(152.5)	2,885.1	3,706.7	(3,666.6)	40.0
Crane & Rigging (4001.09.02.03.01)	2,589.7	2,914.2	(324.5)	(2,860.1)	54.1	7,083.1	8,513.4	(8,526.9)	(13.6)
Fleet Fuel Delivered (4001.09.02.02.03.04)	152.2	158.1	(5.9)	(147.2)	10.9	416.3	381.5	(396.3)	(14.8)
Fleet Fuel Consumed (4001.09.02.02.03.05)	837.2	551.7	285.5	(455.2)	96.5	2,289.6	1,804.8	(1,501.3)	303.5
Fleet Services (4001.09.02.02.01)	4,490.0	2,156.4	2,333.6	(1,821.4)	335.0	12,280.6	6,607.9	(6,829.4)	(221.5)
Fleet Materials (4001.09.02.02.02)	1,522.0	602.1	919.9	(300.6)	301.5	4,162.9	1,838.2	(1,794.0)	44.2
Fleet GSA Vehicle Maint (4001.09.02.02.04)	608.8	245.6	363.2	(471.8)	(226.2)	1,665.2	931.0	(951.4)	(20.4)
Courier Services (4001.09.07.05.01.01)	79.0	59.1	20.0	(57.2)	1.9	216.2	153.1	(153.2)	(0.1)
Usage Based Service - Total	25,289.9	22,128.9	3,161.0	(24,841.5)	(2,712.6)	69,170.6	71,391.5	(70,908.7)	482.8
Variable Services Total	31,450.3	27,926.4	3,523.9	(29,849.0)	(1,922.6)	86,019.8	87,495.2	(86,582.4)	912.8

Usage Based Service/Direct Cost Adder – The fiscal year to date (FYTD) positive cost variance of \$3.5M is primarily driven per cost underruns of Fleet Services/Materials and the Information Technology pool accounts. The Fleet UBS pools underrun is primarily driven by less General Services Administration (GSA) lease costs than reflected in the plan due to typical Site cost transactions of those lease charges.. The FYTD Information Technology cost underrun is due to the timing of large one time license costs forecast for fiscal May. The listed budgeted cost of work scheduled (BCWS) level spreads this procurement budget across the year, thus an underrun is expected through April, pending the large May cost procurements.

The (\$1.9M) over liquidation fiscal year to date (FYTD) is also a result of the pending IT Microsoft license procurement. The IT UBS rates recover the full fiscal year service cost over the entire performance period, thus the one time large procurement cost increase mid-year greatly impacts the FYTD liquidation performance. The account is expected to largely balance by fiscal year end.

7.0 PERTINENT BUSINESS INFORMATION

Table 4. Small Business Statistics – April

Socio Economic Category	Goals	April (04/01/2021 through 04/31/2021)	FY21 Actual to Date (% and Award Amount)	Cumulative
Small Business (SB)	55%	129.43%	91.80% (\$55,958,261.44)	91.80%
Small Disadvantaged Business (SDB)	8%	100.79%	53.36% (\$36,332,836.32)	53.36%
Small Woman Owned Business (SWOB)	8%	49.26%	11.69% (\$7,890,000.55)	11.69%
HUBZone (HUB)	4%	4.92%	10.66% (\$7,114,055.96)	10.66%
Service Disabled Veteran Owned (SDVO)	4%	0.84%	10.94% (\$1,305,297.69)	10.94%
Veteran Owned Small Business (VOSB)	5%	4.27%	14.12% (\$3,455,769.92)	14.12%

- The \$3,411,398.37 (-38.10%) for large business in the month of April is because HMIS had over \$3 million worth of credit amendments on large business contracts this month. This caused the total amount of awards to be less than the amount for Small Business (SB) and Small Disadvantage Business (SDB), resulting in a percentage over 100% for both of these categories.
- FY21 Actual Data and Cumulative columns are the same since both reporting periods align.
- HMIS percentage goals are calculated based on the Total Awards divided by the Overall Awards Total. Each reporting value is calculated separately utilizing the same process and measured against the overall subcontracting goals as outlined in the HMIS Small Business Subcontracting plan.
- Overall award total through reporting period (April 2021) for FY21: \$60,930,161.95
- HMIS reports all purchase card, purchase orders and subcontract awards based on award values and established size standards associated with the subcontractor, i.e. small business, and large business. As a part of the reporting structure, HMIS additionally reports all socio-economic conditions (Small Disadvantage Business, Small Woman Owned Business, Hub Zone, Small Disabled Veteran Owned and Veteran Owned Small Business). HMIS credits all subcontract awards to a Government Contractor, Educational Institute, Nonprofits, Off-

Contract, Government entities and Foreign under a Formally Excluded heading, which ultimately reports under the large business.

8.0 BASELINE CHANGE REQUESTS

In April, HMIS approved and implemented eleven Baseline Change Requests (BCRs) into the Contractor Performance Baseline (CPB). The change requests are identified in the following table:

Table 5. April 2021 Baseline Change Requests

Change Request #	Title	CLIN	Summary of Change
BCR-HMS-21-002	Internal Replanning of Initial PMB to Align with HMIS Execution Strategy	4	This BCR replanned FY 2021 PMB work scope to align to the current execution strategy in order to better segregate costs and track progress.
BCR-HMS-21-008	Create New Indirect WBSs and Reallocate Existing Budget	N/A	This BCR replanned FY 2021 non-PMB work scope to align to the current execution strategy in order to better segregate costs.
BCR-HMS-21-011	Align Direct/PMB Records & Software Engineering Resources to Execution Strategy & Update RP EVT's & Out-Year Activity ID	4, 5, and 7	This BCR replanned records and software engineering direct labor to subcontract resources for PMB accounts only to align with execution strategy.
BCR-HMS-21-012	Realign General and Administrative Non-PMB/Indirect Accounts	N/A	This BCR realigned G&A non-PMB/indirect budgets per the provisionally approved FY 2021 HMIS G&A rate plan of 8.2%.
BCR-HMS-21-013	Implement COVID Direct Budget	4	This BCR established FY 2021 budget for COVID-19 direct cost.
BCR-HMS-21-014	Implement Other DOE Services CLIN 4 Scope	4	This BCR established FY 2021 budget for CLIN 4 Other DOE Direct Support Services.
BCR-HMS-21-015	Implement RFSs through Contract Mod P00058	4	This BCR distributed budget for RFSs received in contract modifications P00047/50/51/52/58.
BCR-HMS-21-016	Aligning Reliability Projects to Vendor Subcontract Submittals	4 and 7	This BCR replanned Reliability Projects to align with latest execution strategies and/or subcontractor design/construction schedules.
BCR-HMS-21-017	Implement L-612 Condition Assessment	4 and 7	This BCR implemented the L-612 condition assessment into the PMB.
BCR-HMS-21-018	Change Project Type for L-888 and L-897 and Incorporate Transformer Procurement into PMB	4 and 7	This BCR aligned Reliability Projects to the correct project type and funding coding while updating the projects to the latest execution strategy.
BCR-HMS-21-019	Update Program Log for Contract Modification P00058 and TAMP and Adjust RP OY Planning Package / CLIN 4 UB	4, 6, 7, 8, and N/A	This BCR aligned the Program Log to the latest contract modifications, aligned the out year planning packages for CLIN 7 and 8, and incorporated administrative WBS/CAM updates.

8.1 Undistributed Budget Activity

In April, the largest contributor to the change in Undistributed Budget (UB) was BCR-HMS-21-019. This BCR corrected the use of CLIN 4 UB for indirect cost adders for CLINs 7 and 8. CLIN 7 and 8 control points were originally for direct cost only, as CLIN 4 contained the formally direct bid indirect-type accounts. This BCR ensured the CLIN 7 and 8 control points were not exceeded for direct cost only, while CLIN 4 UB was utilized for the indirect adders.

Table 6. April 2021 Undistributed Budget
(Dollars in Thousands)

Change Request #	Title	CLIN	UB
BCR-HMS-21-014	Implement Other DOE Services CLIN 4 Scope	4	(\$4,485)
BCR-HMS-21-015	Implement RFSs through Contract Mod P00058	4	(\$227)
BCR-HMS-21-016	Aligning Reliability Projects to Vendor Subcontract Submittals	4	\$75
BCR-HMS-21-017	Implement L-612 Condition Assessment	4	(\$93)
BCR-HMS-21-018	Change Project Type for L-888 and L-897 and Incorporate Transformer Procurement into PMB	4	(\$3)
BCR-HMS-21-019	Update Program Log for Contract Modification P00058 and TAMP and Adjust RP OY Planning Package / CLIN 4 UB	4	\$32,591

8.2 Management Reserve Activity

There was no change in Management Reserve (MR) in April.

9.0 RISK MANAGEMENT

Program Services and Support: Refer to Section A of this report for Program Services and Support specific risk assessments.

Reliability Projects: Refer to Section B of this report for project-specific risk assessments.

10.0 PROGRAM CONDITION STATUS

Table 7. Hanford Site Infrastructure System Health and Status Summary
HANFORD SITE INFRASTRUCTURE SYSTEM HEALTH AND
STATUS SUMMARY
DATA CURRENT THROUGH APRIL 22, 2021

INFRASTRUCTURE SYSTEM		SYSTEM DESCRIPTION	SYSTEM HEALTH RATINGS			
			OVERALL STATUS	AVAILABILITY	MAINTENANCE	CONFIGURATION
WATER/SEWER UTILITIES	HMIS-ENG-66397, Rev 0 Updated Quarterly Export Water (INFRA-EW) Data: Jan - Mar 2021 Last Published: Apr 2021	This system provides export water to the 200 East & West Areas of the Hanford Site. Columbia River water is pumped to the 100-B and 100-D Areas and placed in settling basins. This system interfaces with both the raw and sanitary water systems.	81% (-4%)	77% (-5%)	91% (-3%)	86% (+1%)
	HMIS-ENG-66396, Rev 0 Updated Quarterly Raw Water (INFRA-RW) Data: Jan - Mar 2021 Last Published: Apr 2021	This system delivers raw water from the 200 Area reservoirs to the 200 Areas of the Hanford Site.	71% (-1%)	55% (NC)	92% (-8%)	97% (+1%)
	HMIS-ENG-66395, Rev 0 Updated Quarterly Sanitary Water (INFRA-SW) Data: Jan - Mar 2021 Last Published: Apr 2021	This system treats export water for human use and consumption in the 200 Areas of the Hanford Site.	92% (NC)	92% (NC)	91% (-2%)	92% (+1%)
	HMIS-ENG-66394, Rev 0 Updated Quarterly Sanitary Sewer (INFRA-SNS) Data: Jan - Mar 2021 Last Published: Apr 2021	This system receives and processes waste water generated from occupied facilities in the 200 Areas of the Hanford Site.	87% (+1%)	79% (NC)	96% (+3%)	100% (NC)
SAS	HMIS-ENG-66418, Rev 0 Updated Quarterly Safeguards and Security (INFRA-SAS) Data: Jan - Mar 2021 Last Published: Apr 2021	This system provides access control & intrusion detection capabilities at the Hanford Site excluding the 200 Area Interim Storage Area. The boundary for each facility security system is defined by the power source.	99% (+1%)	100% (NC)	100% (+2%)	93% (+3%)

HANFORD SITE INFRASTRUCTURE SYSTEM HEALTH AND STATUS SUMMARY

DATA CURRENT THROUGH APRIL 22, 2021

INFRASTRUCTURE SYSTEM	SYSTEM DESCRIPTION	SYSTEM HEALTH RATINGS			
		OVERALL STATUS	AVAILABILITY	MAINTENANCE	CONFIGURATION
ELECTRICAL UTILITIES	HMIS-ENG-66447, Rev 0 Updated Quarterly Transmission (INFRA-Transmission) Data: Jan - Mar 2021 Last Published: Apr 2021 This system provides electricity to the entire Hanford Site by powering three 230 kV substations and one 115kV substation that powers the 400 Area. Major components of the system include the power lines, structures, and foundations. The deactivated A7 substation is this system as it functions only to transmit power.	See Note 5 (-0.9%)	100% (NC)	96% (NC)	100% (NC)
	HMIS-ENG-66446, Rev 0 Updated Quarterly Distribution (INFRA-Distribution) (INFRA-T&D) Data: Jan - Mar 2021 Last Published: Apr 2021 This system provides power to the entire Hanford Site from the substations using overhead and some underground distribution lines. Major components of the system include service transformers, conductor, poles, line fault indicators, pole-top reclosers, capacitor banks and pole-top switches.	93.2% (-1.4%)	100% (+0.1%)	76.2% (-10%)	90% (+3.3%)
	HMIS-ENG-66401, Rev 0 Updated Quarterly Supervisory, Control, and Data Acquisition (INFRA-EU_SCADA) Data: Jan - Mar 2021 Last Published: Apr 2021 This system provides real-time knowledge of the electrical power flowing through the INFRA-TRANSMISSION, INFRA-SUB_A6, INFRA-SUB_A8, INFRA-SUB_A9, and INFRA-DISTRIBUTION systems. This system has some real-time knowledge of the INFRA-SUB_451B system. It performs remote operation of some switches.	88.10% (-1.59%) See Note 6	99.995% (+0.006%)	95.6% (-4.4%)	98.3% (NC)
	HMIS-ENG-66448, Rev 0 Updated Quarterly Electrical Utilities: Meter Data Management System (INFRA-MDMS) Data: Jan - Mar 2021 Last Published: Apr 2021 This system provides data collection, energy management, & access by stakeholders through a web-based Energy Management Module, and energy billing to support the unique Hanford electrical billing process for BPA billing, costing, forecast, and rate.	87.8% (-4.8%) See Note 6	98.4% (-0.1%)	96.0% (+0.6%)	99.3% (-0.7%)
	HMIS-ENG-66398, Rev 0 Updated Quarterly Substation A6 (INFRA-SUB_A6) Data: Jan - Mar 2021 Last Published: Apr 2021 This 230 kV substation monitors, protects, and controls the electrical power to the Waste Treatment Plant (WTP) Complex. The substation transforms transmission power to distribution power, which is supplied underground to the WTP 13.8 kV Switchgear Building.	98.4% (-1.2%)	100% (NC) See Note 7	95% (-5%)	97% (NC)
	HMIS-ENG-66398, Rev 0 Updated Quarterly This 230 kV substation monitors, protects, and controls the electrical power to the 200 East and	96.6% (-1.4%)	100%	94% (-6%)	89.0% (-1%)

HANFORD SITE INFRASTRUCTURE SYSTEM HEALTH AND STATUS SUMMARY

DATA CURRENT THROUGH APRIL 22, 2021

INFRASTRUCTURE SYSTEM	SYSTEM DESCRIPTION	SYSTEM HEALTH RATINGS			
		OVERALL STATUS	AVAILABILITY	MAINTENANCE	CONFIGURATION
Substation A8 (INFRA-SUB_A8) Data: Jan – Mar 2021 Last Published: Apr 2021	200 West Areas. The substation transforms transmission power to distribution power. This substation also provides backup power to Substation A9, which supplies the 100 Areas.		(NC) See Note 7		
HMIS-ENG-66398, Rev 0 Updated Quarterly Substation A9 (INFRA-SUB_A9) Data: Jan – Mar 2021 Last Published: Apr 2021	This 230 kV substation monitors, protects, and controls the electrical power to the 100 Areas. The substation transforms transmission power to distribution power.	98.4% (+3.2%)	100% (NC) See Note 7	92% (+16%)	100% (NC)
HMIS-ENG-66398, Rev 0 Updated Quarterly Substation 451B (INFRA-SUB_451B) Data: Jan – Mar 2021 Last Published: Apr 2021	This 115 kV substation monitors, protects, and controls the electrical power to the 400 Area and Laser Interferometer Gravitational Observatory. The substation transforms transmission power to distribution power.	70.7% (-0.3%) See Note 8	100% (NC)	90% (+2%)	81% (-4%)
INFORMATION TECHNOLOGY	HMIS-ENG-66426, Rev 0 Updated Quarterly Core Telecommunication Infrastructure (INFRA-TELECOM) Data: Jan – Mar 2021 Last Published: Apr 2021	94% (+1%)	95% (+1%)	100% (NC)	85% (+4%)
	HMIS-ENG-66427, Rev 0 Updated Quarterly Outside Plant Telecom Infrastructure (INFRA-OSP) Data: Jan – Mar 2021 Last Published: Apr 2021	89% (-5%)	90% (-5%)	92% (NC)	84% (-10%)
	HMIS-ENG-65998, Rev 1 Updated Quarterly Campus Network Infrastructure (INFRA-CAMPUS) Data: Jan – Mar 2021 Last Published: Apr 2021	95% (NC)	96% (+1%)	100% (NC)	89% (-2%)
	HMIS-ENG-66400, Rev 0 Updated Quarterly	100%	100%	100%	100%

HANFORD SITE INFRASTRUCTURE SYSTEM HEALTH AND STATUS SUMMARY

DATA CURRENT THROUGH APRIL 22, 2021

INFRASTRUCTURE SYSTEM	SYSTEM DESCRIPTION	SYSTEM HEALTH RATINGS			
		OVERALL STATUS	AVAILABILITY	MAINTENANCE	CONFIGURATION
Special Circuits (INFRA-SC) Data: Jan – Mar 2021 Last Published: Apr 2021	This system manages all of the special circuits providing telecommunications connectivity across the Hanford Site. This system interfaces with the core telecommunication system.	(NC)	(NC)	(NC)	(+1%)
HMIS-ENG-66002, Rev 1 Updated Quarterly Hanford Site Emergency Alerting System Data: Jan – Mar 2021 Last Published: Apr 2021	This system manages all drawings, diagrams and maps associated with the Hanford Site Emergency Alerting System (HSEAS). System includes sirens, message reader boards (MRB), tone alert radios (TAR), and AM radio stations.	80% (+3%)	72% (NC)	86% (+13%)	96% (+2%)

HANFORD SITE INFRASTRUCTURE SYSTEM HEALTH AND STATUS SUMMARY

DATA CURRENT THROUGH APRIL 22, 2021

INFRASTRUCTURE SYSTEM	SYSTEM DESCRIPTION	SYSTEM HEALTH RATINGS			
		OVERALL STATUS	AVAILABILITY	MAINTENANCE	CONFIGURATION
HMIS FIRE SYSTEMS	HMIS-ENG-66442, Rev 0 Updated Quarterly Breathing Air System (INFRA-FIRE_AIR) Data: Jan – Mar 2021 Last Published: Apr 2021	82% (-14%)	70% (-27%)	100% (+10%)	100% (NC)
	HMIS-ENG-66435, Rev 0 Updated Quarterly Radio Fire Alarm Reporter (INFRA-RFAR) Data: Jan – Mar 2021 Last Published: Apr 2021	92% (NC)	94% (-1%)	95% (+3%)	83% (NC)
	HMIS-ENG-66004, Rev 1 Updated Quarterly	86%	95%	72%	75%

HANFORD SITE INFRASTRUCTURE SYSTEM HEALTH AND STATUS SUMMARY

DATA CURRENT THROUGH APRIL 22, 2021

INFRASTRUCTURE SYSTEM	SYSTEM DESCRIPTION	SYSTEM HEALTH RATINGS			
		OVERALL STATUS	AVAILABILITY	MAINTENANCE	CONFIGURATION
Fire Alarms (INFRA-FA) Data: Jan – Mar 2021 Last Published: Apr 2021	This system alerts building occupants of smoke and/or fire within the building and associated structures, while automatically summoning emergency services because of the activated alarm(s). [HMIS facilities only].	(+1%)	(+1%)	(+2%)	(+2%)
HMIS-ENG-61894, Rev 1 Updated Quarterly Fire Suppression (INFRA-FIRE_SUPP) Data: Jan – Mar 2021 Last Published: Apr 2021	This system provides automatic controls for fires in buildings using; water, carbon dioxide, dry chemical, clean agents (Halon replacements), and high-expansion foams for the protection of certain portions of buildings or occupancy types. [HMIS facilities only]	82% (-2%)	100% (NC)	65% (-8%)	48% (NC)
ROADS HMIS-ENG-66422, Rev 0 Updated Quarterly Hanford Site Roads (INFRA-ROADS) Data: Feb – Mar 2021 Last Published: Apr 2021	This system provides safe and compliant road networks to support continued operations and closure of the Hanford Site. Major components of the system include primary, secondary, and tertiary roads.	87% (-5%)	86% (NC) See Note 10	78% (-22%)	100% (NC)

Rev. FY21-04

Notes:

1. HMIS-PRO-ENG-61164, *Infrastructure System Health and Status Reports*, describes the process for report and ratings development.
2. In general, the Overall Status is calculated using Availability, Maintenance, and Configuration ratings. For some specific systems, aging or other Design Authority considerations has been factored in and a specific Note is identified.
3. Chart is based on the most recent published data for each system.
4. When data is available from a prior reporting period, the delta increase or decrease in the score is shown in parentheses below the current score.
5. Report includes separate ratings for status of North and South Loops. Overall status for this system exceeds goal value shown in report.
6. Consideration of system aging resulted in reduction of Overall System Status. See report for details on how this affects the Overall System Status score.
7. Report also calculates and presents availability of Bulk Electric System (BES) Transfer Trip Communications System, which is not presented in this summary table.
8. Overall System Status score scaled by 0.75 to reflect age of system and current period issues with transformer B5810C. See report for details.
9. NC = No Change.
10. This score for Roads is defined by the Design Authority as **Condition** in the report, as appropriate to this system.

Rating Legend	Rating Description
> 90%	Meets Goal
≥ 70% < 90%	Minimally Acceptable (Below Goal)
<70%	Not Acceptable

Revision Summary:

FY21-01: Updates to reflect latest updates to reports for INFRA-EW, INFRA-RW, INFRA-SW, INFRA-SNS, INFRA-Transmission, INFRA-Distribution, INFRA-EU_SCADA, INFRA-MDMS, INFRA-SUB_A6, INFRA-SUB_A8, INFRA-SUB_A9, INFRA-SUB_451B, INFRA-TELECOM, and INFRA-OSP.

FY21-02: Updates to reflect latest updates to reports for INFRA-EW, INFRA-RW, INFRA-SW, INFRA-SNS, INFRA-Transmission, INFRA-Distribution, INFRA-EU_SCADA, INFRA-MDMS, INFRA-SUB_A6, INFRA-SUB_A8, INFRA-SUB_A9, and INFRA-SUB_451B.

--Start of HMIS Operations (Jan 25, 2021)--

FY21-03: Updates to reflect latest updates to reports for INFRA-SC, INFRA-CAMPUS, INFRA-HSEAS, INFRA-RFAR, INFRA-FA, and INFRA-SUPP.

FY21-04: All reports updated to meet HMIS contract requirements for quarterly reporting of system health and status.

The Overall Status Scores for each system were either in the Yellow or Green score range (i.e., Overall System Status $\geq 70\%$). Included below is discussion of the three individual Red scores across all 20 reports:

- INFRA-RW (Raw Water)
 - Availability. The raw water system availability score is shown to be 55% in the most recent report (HMIS-ENG-66396, Rev 0). The system configuration remained the same during the January to April 2021 time period due to downtime for construction activities associated with Project L-895 and downtime for known maintenance for the 200 East Area fire pump. The Metron control cabinet supporting the 200 East Area fire pump is down, but walk downs for the job have been performed, work packages planned, and the new cabinet is on site with an expected installation to be next quarter (April to June 2021). Project L-895 Construction continued the pump house renovations at 282W and will continue into at least the next quarter. The availability items discussed here did not affect service for the raw water system due to the level of redundancy that has been engineered into INFRA-RW system and there was no interruption to raw water service during the reporting period.
 - INFRA-FIRE_SUPP (HMIS Fire Suppression Systems)
 - Maintenance. The fire suppression systems maintenance score is shown to be 65% in the most recent report (HMIS-ENG-61894, Rev 1). The score for the quarter was negatively impacted due to a low performance level of backlog corrective maintenance associated with fire suppression systems in HMIS facilities. It is expected that an increased level of backlog preventative maintenance will be accomplished during the next quarter.
 - Configuration. The fire suppression systems configuration score is shown to be 48% in the most recent report (HMIS-ENG-61894, Rev 1). This is due to the discovery of more open engineering changes on the system drawings than were

previously known and resource limitations/priorities during the period covered in the current report. Additional resources have been added to this effort and it is expected that progress will be made on resolving the open engineering changes and bringing new and revised documentation into the technical baseline. These actions are anticipated to improve the configuration score in the next quarterly report; however, it may take two to three quarters to move the score solidly into the Yellow score range on the way to Green.

SSIM – (Maintenance Services) Maintenance Productivity

TCO – Page 1 (Corrective Maintenance) All Sites – Requested Maintenance

TCO – Page 2 (Preventive Maintenance) All Sites – Routine Maintenance

TCO – Page 2 (Maintenance and Work Control) Resource Allocation Requested vs. Filled

11.0 GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

HMIS Contracts is currently reviewing the J.11 table in relationship to C.3 of the contract and J.10.2. Needs identified to date are identified in the following table.

Table 8. Government Furnished Services and Information

Contract Section	Identification	GFS/I	Due	Status
C.4.3.1.4	GF0001	DOE will administer Memorandum of Understanding (MOUs) with other law enforcement agencies or other Federal agencies (e.g., U.S. Department of Defense [Yakima Training Center]). DOE will provide copies of MOUs and/or contracts to the HMESC.	As required	HMIS requests status on the annual review and/or update to the “MOU for Mutual Law Enforcement Assistance” between DOE-RL and the local law enforcement agencies.

12.0 DOE ACTIONS/DECISIONS

Program Services and Support: Refer to Section A of this report for Program Services and Support specific DOE actions/decisions.

Reliability Projects: Refer to Section B of this report for project-specific DOE actions/decisions.

Section A



Program Services and Support

1.0 PROGRAM SERVICES AND SUPPORT SUMMARY

Key accomplishments and progress towards completion of goals and objectives, for the month of April included:

President's Office:

- Chief of Staff/Communications/External Affairs/Operating Excellence/Special Projects
 - o The Hanford Advisory Board (HAB) annual membership packet was formally signed by DOE Site Manager Brian Vance and submitted to Headquarters April 22. HMIS played an integral part in creating the packets for all 71 proposed board members. The packet is expected to be approved by Headquarters by June 30.
 - o HMIS organized and managed all aspects of a virtual public meeting for the Engineering Evaluation / Cost Analysis on Proposed Alternatives for 200 West Area Tier 2 Buildings/Structures Removal Action. Support included a public notice, social media and hanford.gov postings, collaboration between DOE, contractors and TPA agencies, meeting logistics and facilitation, and a top manager's summary of the meeting.
 - o HMIS managed the planning and execution of launching a public comment period on the M-091 TPA milestone series. Support included a fact sheet, newspaper ad, social media, and multiple Listserv announcements.
 - o HMIS participated in five Hanford Advisory Board virtual meetings and four calls, as well as prepared and conducted the monthly TPA public involvement officer meetings. HMIS staff also strategized with DOE HAB leadership, provided remarks and answered questions as needed during events. Staff took notes, photos and drafted the top manager summaries for DOE management.
 - o HMIS coordinated meetings and discussions between our Microsoft Teams© SMEs and the Hanford Office of Communications to discuss switching to the Hanford-supported MS Teams platform for HAB and Public Involvement meetings. An additional meeting with IM clarified telecommunication requirements and assured use of the best available products.
 - o HMIS staff worked with DOE in assuring a site visit coordinated by the Waste Treatment Plant lined up with site tour standards and protocols. Five representatives from the Washington State Department of Health participated in a walkthrough of the Waste Treatment Plant. HMIS coordinated with BNI representatives to help manage badging and other logistics and sent tour notifications to Hanford leadership and contractor staff as needed.
- HMIS coordinated a virtual Hanford Speakers Bureau presentation with the West Point Society of Oregon. Brian Stickney provided the Site overview and Mark French provided an overview of Trench 94.
- HMIS drafted and/or edited and sent 9 general delivery messages in April, primarily related to traffic impacts and COVID-19 information.
- HMIS supported a video production for ORP's Industry Day. The One Hanford team came together to film a narrator, cut in a variety of multi-media elements and support numerous revisions in short order to meet a product commitment.

- HMIS facilitated a DOE hosted call to action meeting for the prime Hanford contractors. The meeting was a teaming opportunity to foster discussion on the current state of operations preparedness and a call to establish and maintain 24/7 operations on the Hanford Site. The session aided in the communication of DOE expectations in achieving an operational culture and an introduction to the phase-gate method.
- HMIS led a virtual strategy workshop for the DOE Environmental organization. The goal of the workshop was to bring DOE and HMIS together to define the HMIS role in the Hanford Site Permitting and Modeling program and brainstorm strategies for implementation of the proposed air modeling and permitting support structure.
- HMIS facilitated and DOE hosted the first of several workshops to develop LOIs for each stage of the phase-gate process in preparation for 24/7 operations at the Hanford Site. The workshop included each of the prime contractors. The goal was to develop the appropriate LOIs needed to satisfy each of the pre-requisites for stage 1 of the process. The team also had an opportunity to communicate process concerns and were introduced to the phase-gate reporting tool.
- Ethics
 - o Held the first HMIS Ethics and Compliance Committee meeting. This committee includes representatives from E&C, Legal, Business Process Compliance, Workforce Solutions, Internal Audit, and Procurement. The team collaborates on the development, implementation and operation of an effective E&C program. Furthermore, the committee reviews the structure, operation and effectiveness of the E&C program, including its policies and procedures, reporting channels, regulatory audits and enforcement actions as well as inquiries from government agencies involving E&C matters.
- Employee Concerns
 - o Nothing to report.

Business Integration and Operations:

- Site Mission Integration
 - o Continued closing Hanford Life-Cycle Cleanup Baseline (HLCCB) scope gaps and pricing capability. Coordinating with DOE regarding disposition narrative based on recently implemented baseline change request.
 - o Continued revisions to the HLCCB Change Control charters (HCAB, ESAAB-E), and evaluated potential changes to the DOE Decision Management Procedure. Continued testing of the HLANBCR change control module. Production implementation expected at the end of May.
 - o Presented updated Hanford Integrated Priority List criteria to DOE along with sensitivity rankings for final review.
 - o Coordinating with DOE-ORP regarding timing and information for Contractor Lifecycle Cost Estimate (CLCE) review to support Lifecycle Report.

- o HLANCostPlan, a custom application that contains work breakdown structure (WBS) dictionaries, amongst other scope and estimating elements, is expected to be implemented into production by end of May.
- o Continued to develop the data crosswalk in SQL script to be used as a basis for the mapping of earned value data for Power BI and a more efficient mechanism of pushing the data into the data warehouse.
- Procurement
 - o Supply Chain Management Center ‘Face-to-Face’ Meeting: HMIS Procurement representatives participated in the Supply Chain Management Center (SCMC) ‘Face-to-Face’ Spring 2021 virtual meeting held on April 13. The annual meeting includes attendees from multiple DOE Environmental Management sites across the nation that participate with SCMC and their strategic sourcing opportunities. Discussions and presentations included mid-year performance to date, five year timeline discussion and more near term upcoming agreement awards.
 - o On-boarded 3 new team members to include 1 Contract Specialist for Services, 1 Contract Specialist for Construction and 1 Procurement Compliance Specialist.
 - o Identified POC to lead C.5 DOE Small Business Procurement Pre-Award Support scope activities. This scope includes two deliverables, one to identify meaningful work, from the HMESC PWS, that shall be awarded to small businesses as prime contracts to DOE. The second is to develop a Small Business Procurement Support model for DOE approval. Kick off meeting with DOE-RL for the second deliverable is set for May 18.
- Finance & Accounting
 - o HMIS has invoiced \$60,597,795 as of April 30, 2021 – to DOE and OHCs.
 - o HMIS has received \$28,626,227 from DOE for invoice payments as of April 30, 2021.
 - o HMIS Finance continues to work closely with Corporate to streamline corporate reporting responsibilities.
- Business & Prime Contract Administration
 - o Bus Admin & Integration and Field Project Controls coordinated and submitted an IIP and RPIP Update on April 20, 2021 to incorporate changes as received in CBAG Rev 2. HMIS anticipates another IIP update submittal after discussions in May regarding funding reductions and the receipt of a CBAG Rev3.
 - o HMIS Prime Contracts processed 7 Contract mods, 43 letters from RL and 103 letters to RL. Of those 103, 42 of them were Contract Deliverables. 251 other pieces of correspondence were processed and that includes OHC correspondence, emails put into IDMS and other misc correspondence not from RL.

- Business Process Compliance
 - o Continued supporting Finance & Accounting with the review, submittal, and resolution of customer comments on invoices HM20210601 and HM20210602. Also supported the development of the draft Miscellaneous Employee Reimbursements procedure.
 - o Provided approximately 79 telemetry related trip reports to managers with government vehicles to evaluate. Business Process Compliance also incorporated several updates to the telemetry data based on feedback from Functional Service Areas.
 - o Supported the review of the Overtime Reporting data by validating the supporting data and providing feedback regarding the enhancements to the related business analytic. As part of this review, the duplication of the exempt shift hours (SHI) was identified and removed.
 - o Continued the development of multiple business analytics regarding Code of Account Usage, training on overtime, timecard non-concurrences, and the pre-loading of time sheets. Also started developing an analytic for validating the rates in the Business Management System against the approved Forward Pricing Rates.

Infrastructure & Site Services:

- W&SU personnel have worked successfully with WRPS and CPCCo to complete connections to our Sanitary Water and Sanitary Sewer systems. In support of A/AX project, four support trailers were connected to our sanitary water and sanitary sewer systems. In support of IDF, two connections were made to our Sanitary Water line. Field walk downs and Teams Meetings with OHC's have been productive during the tie-in process to resolve any issues that arose and keep lines of communication open.



IDF Baltimore Tie-in

- On 04/21/2021 at approximately 1245 hours, HMIS SOE found a cracked and leaking valve on discharge line for the 6607-2 sewer (see picture) which is part of the permitted system HAN048 (6607-9). Approximately 10 gallons of raw sewage was discovered in the valve pit. Repairs will be completed under EAM 824654 - HMIS 6607-2 LIFT STATION - DRAIN DISCHARGE LINE & REPLACE VALVES



Cracked valve at 6607-2

- 2nd quarter sample results were received from sampling activities conducted on April 6, & April 13, 2021, at the 6608 Bio solids Treatment Facility. Hydrogen sulfide sample results were well below permit threshold value (results were 10,272.9 ug H₂S/L – permit threshold value is 33,200 ug H₂S/L); however, sample results for biological oxygen demand (BOD), when calculated with flow rates was 239.4 pounds per day (permit threshold value is 105 pounds per day). The day of sampling, April 6, 2021, was the highest flow rate for the month of April at 56,278.8 gallons/day. With this high of a flow rate, one would expect that dilution would be occurring and BOD values would actually go down. Total suspended solids (TSS) was also high; however, there is no permit threshold value. TSS sample results were 750 mg/L. It is not unexpected that TSS would also be high if BOD is high.
- To address these results, WSU personnel will be completing investigative activities which include:
 - o Performing a foot survey to evaluate what is being put down the drain the various facilities that discharge to the 6608 Biosolids Treatment facility discharging into that system.
 - o Evaluation of approved list of chemicals that Custodial Services provided on Tuesday, May 4, 2021.
 - o Consecutive monthly sampling for the months of May and June. All three samples (April, May, and June) will be averaged out and submitted in the 2nd quarter DMR report.
- ArcGIS Indoors procurement is proceeded. Plan to use as a solution for office hoteling and potential replacement for Caretaker's Space Management module. The Geospatial organization will coordinate with Maintenance Management Programs for implementation.
- FIMS-RTS completed on emergency level to have it in production for Validation. New completion date in June 2021
- Maintenance and Testing Equipment contract Mod 3 waiting final signature with Energy Northwest.

- EU demonstrated versatility while adapting and overcoming ever-changing L-789 schedules and issues. Numerous related support packages were completed leading to the outages and cutovers. These weekly work and schedule changes with multiple dependent parties needed extensive coordination.
- SCADA upgrades for L-801 required innovative solutions at A6 Substation. EU's team addressed several problems. After vendor provided the equipment and oversight, HMIS Instrument Techs completed the installation. A system function test was completed and two issues were fixed by EU personnel: #1 protection relay circuitry were replaced; and #2 transfer trip fiber optic transmit and receive settings were reset.



- A planned WRPS' maintenance outage at ETF gave our linemen, electricians, and operators a chance to maintain and upgrade associated EU systems, specifically: cleaned and completed maintenance on switchgear cabinets, and reconfigured them to upgrade fittings.



- Traffic Management successfully prepared 23 containers for shipment to Alaska in support of the Radiological Assistance Program (RAP) Team, which included three Type A radioactive drums. This was the first shipment of this kind since the start of the pandemic. Additionally, this was the largest shipment made on behalf of the RAP Team.
- Operation Support Services has successfully integrated the training report function from the Learning Management System into the Visual Communications System (VCS) KIOSKS. This integration now enables individual facilities/projects the ability to display their weekly

training schedules, which is anticipated to reduce the number of “no-shows” and provide better communication with the Bargaining Unit.

- Operation Support Services worked with the new Hanford Laboratory Management and Integration (HLMI) team to provide them with the ability to utilize the HMIS WARNS system to send notifications to their employees regarding activities at 222-S Labs. This is the first integration with a non-HMIS entity into the WARNS system. Controls have been established to prevent cross messaging (e.g. HMIS sending messages to 222-S and vice versa) between contractors.
- Field support for Project L-789 which upgraded portions of the 200W 13.8kV electrical distributions system. Throughout April, several facility electrical outages were necessary to perform tie-ins of newly installed electrical systems. Fire Systems Maintenance supported the bypass and restoration of 17 facility fire systems in support of the electrical outages.
- FSM provides ongoing support to the TSCR construction project. FSM has worked with system design authorities to identify and procure critical spare parts to be staged for future maintenance, and is coordinating support for Operational Acceptance Testing expected to commence in late May and early June.
- FSM responded to and corrected 8 Emergency Impairments in April. These impairments have significant operational impacts on facility fire protection systems, therefore immediate corrective action is crucial to maintain the protection of the facility in the event of fire. Facilities of note are three at CWC complex, and 2704HV.
- Gap analysis completed for JCS to EAM, Presented Gap Analysis to FSM and SAS (Security). Working with the Systems Engineers to build a Schedule for the transition of both organizations into EAM. Working with the Training Organization to setup structured training program for EAM/WORA.
- Completed Planning of work package #805787 for MO2280 and MO2281 to install Electrical Service to 30 cubicles in support of COVID Guidelines
- Supporting additional TSCR PM request to add equipment to the new PM procedure that was just completed.
- Currently Working with Project Manager over EAM, to bring the system into SQA compliance. In addition we are in the process of doing an upgrade to a new version 11.6 of EAM to support being in compliance with SQA.
- Continue to work with our Sub-Contractor TG on areas of concern with Fire Systems Maintenance Fire Fighter only work packages (scheduling issue and defined roles and responsibilities for the TG team) to support Fire Systems Maintenance.
- Working to bring Procedures 14047 Conducting Pre-Job Briefing and Post Work Review, 16276 Periodic Maintenance and Calibration Program Implementation guide into the current format of MSAPS along with the revisions to update MSA to HMIS verbiage.
 - In process of moving Station 93 Maintenance PM’s and Corrective work packages from Fire Systems Maintenance JCS to Central Maintenance EAM.
 - Performed a status review with TerraGraphics Management and HMIS management

- Review of Monthly TG metrics Planned to RTS and Ready to Close to Closed work packages.

Interface & Integration Services:

- Interface Management:
 - o HMIS Interface Management facilitated the review and approval of the Administrative Interface Agreement (AIA) between HMIS and Washington River Protection Solutions (WRPS) for Commitment to Tank Side Cesium Removal (TSCR) Operational Readiness Support (TOC-AIA-HMESC-00093, Rev. 0). The purpose of the AIA is to ensure that HMIS-provided services for the TSCR Project are clearly defined and in place prior to TSCR start-up.
 - o HMIS Interface Management and HMIS Finance worked with the Hanford Laboratory Management and Integration (HLMI) Contracts Department in completing 28 new Inter-Contractor Work Orders (ICWOs) prior to HLMI's contract start date of April 15, 2021. Having these ICWOs in place ensures that HLMI will receive essential HMIS support services beginning on Day 1 of their prime contract for managing and operating the 222-S Laboratory.
 - o The Contractor Interface Board met on April 15, 2021, hosted by HMIS. Agenda items included a safety topic, a discussion on planning for possible resumption of in-office work, a briefing on the Center for Disease Control's recently updated COVID-19 facility cleaning guidance, guidance for beryllium (Be) -related medical surveillance travel, and an overview of pending changes to 200 Area irrigation systems.
 - o Service Catalog Migration. HMIS (Northwind) server personnel, with assistance from Kinetic Data, completed the installation and configuration of Kinetic CE on HLAN on April 21, 2021. This represents a key milestone in migrating the Service Catalog and establishes the environment needed to allow development and testing to continue.

Fleet Services:

- Nothing to report this month.

HAMMER:

- Effectively collaborated with site contractors to address the large bow wave in training that was forecasted this summer. This bow wave was created due to the HAMMER COVID-19 shutdown and large number of core training classes conducted upon restart. Training coordinators pulled students back into March, April, and May to level out training due dates.
- The HAMMER Hanford Training Board of Directors meeting was held for in-person and online participants on April 13. Leadership from the DOE, site contractors, and Labor discussed HAMMER's training and project status, COVID-19 protocols, worker trainer challenges, and future Hanford Site training needs.
- Submitted quarterly contract deliverable CD0060-DOE statistical information on student numbers and facility usage on April 22, 2021.

Warehouse & Property Management:

- In April, Asset Disposition (Excess) processed the last 2 Cranes from a lot of 5 that were received from Crane & Rigging between August and November of last year. The first 3 Cranes were allocated to Idaho, Louisiana and Florida State Agencies for Surplus Property. The remaining 2 Cranes -The Pawling & Harnischfeger CNT650 and Grove TMS740 truck mounted cranes that were not allocated during the screening process, were cleared and released from the berm (equipment laydown yard north of 2355 Stevens Drive on the former site of the old Central Stores building). The cranes were sold the week of April 19, 2021 through the GSA Auctions.



- Submitted contract deliverable CD0093 – Conduct a Complete Wall-to-Wall Physical Inventory and Provide a Report on April 15, 2021. Overall Line Item Accuracy was 99.42% and Overall Cost Accuracy was 99.72%.
- Asset Disposition also processed a Strobic Air Exhaust System through GSA Auctions in April. The System was fabricated in Philadelphia for WRPS. Once declared Surplus Property, the System was offered up to other Government and State Agencies through EADS & GSAXCESS. When no other Agencies screened the System for reuse, it was posted with GSA Auctions where it was sold. A successful effort, as the System had been incurring off-site monthly storage fees for WRPS.



Transportation Services:

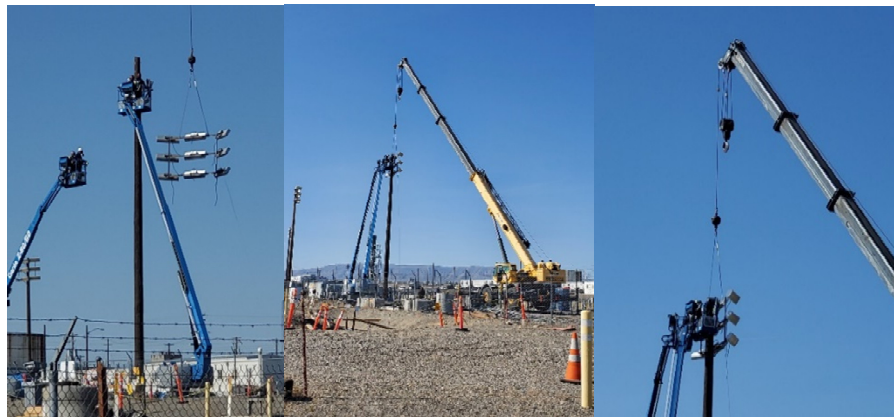
- HMIS Teamsters assist the HMIS Ironworkers to install new lighting inside of the AP Tank Farm for WRPS.

Crane and Rigging:

- Recently HMIS Crane & Rigging set the L-921 telecommunications building in its final resting place at the base of the 400-foot meteorological tower. Where it will serve the Hanford Site for many years to come with critical weather data and communications. A Special Lift Plan (required for two-crane lifts) was developed, approved, and utilized for the hut placement. The building is 10 feet wide x 10 feet tall x 36 feet long and weighs approximately 86,000 lbs.



- HMIS Crane & Rigging services provides support to WRPS to help brighten the future (literally), during lighting upgrades in the AP-Farm complex. The old stadium lighting needed to be replaced due to being outdated and more than half of the lights not working. Current lighting is low-pressure sodium lights and are being replaced with newer more efficient LED assemblies. Each light fixture held nine low-pressure sodium lights and the new fixtures would house three LED lights. Working as a composite crew, the electricians perform disconnect and removal of mounting hardware while the Crane & Rigging crew attach rigging to the fixture assembly to lower to the ground when ready, then bring the new assembly's up to the poles for electricians to complete the installation.



Mission Assurance:

- HMIS Performance Oversight supported DevonWay iCAS implementation and software documentation for Hanford Laboratory Management and Integration (HLMI). HLMI successfully implemented the system into production effective April 15, 2021. The HMIS Acquisition Verification Services (AVS) group performed receipt inspection of quality level 1, 2, and 3 items on behalf of the prime contractors. AVS completed the receipt of 194 receivers, comprising of 275-line items, and generated 23 non-conformance reports (NCRs).

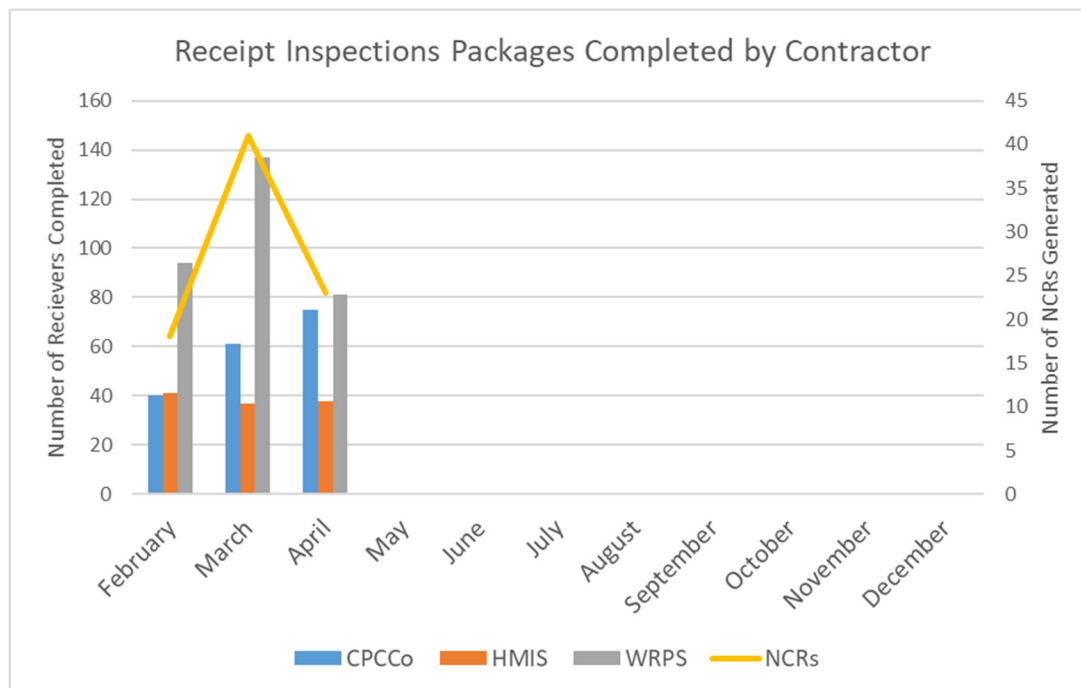


Figure A-1. Receipt Inspections Packages Completed by Contractor

- HMIS Quality Assurance Engineers provided oversight of subcontractor activities and reliability project activities by reviewing 284 documents including statements of work,

design, construction and procurement project documents, and participated in 17 field oversight/witness activities.

- HMIS operates the Centralized Consolidation/Recycling Center (CCRC) and receives Universal Waste (UW) and other types of recyclable commodities from all site contractors. The UW and recyclable commodities are then shipped offsite to approved recyclers. The tables below represent the volume of waste received by and shipped from the CCRC.

Table A-1. CCRC Shipments

Items Shipped to the CCRC During April FY2021								
Material Received		Received From						Totals
		HMIS	CPCCo	WRPS	PNNL	WTP	DOE-RL	
Mercury Containing Equipment	Gross Pounds							0
Non-PCB Ballasts	Gross Pounds	471		273		449		1,193
UW Lamps (All Types)	Gross Pounds	825	211	44				1,080
UW Batteries (All Types)	Gross Pounds		92	13		452		557
Lead Acid Batteries	Gross Pounds	592						592
Aerosol Cans	Cans Received							0
Aerosol Cans	Cans Punctured							0

Table A-2. CCRC Off-Site Shipments

Off-Site Shipments from the CCRC During April FY2021				
Material Received		Veolia	ORRCO	Totals
Mercury Containing Equipment	Gross Pounds			0
Non-PCB Ballasts	Gross Pounds			0
UW Lamps (All Types)	Gross Pounds			0
UW Batteries (All Types)	Gross Pounds			0
Lead Acid Batteries	Gross Pounds			0
Used Oil	Gross Pounds		1,548	1,548
Spent Antifreeze	Gross Pounds		11402	11,402
Off-Spec Gasoline	Gross Pounds			0
Off-Spec Diesel Fuel	Gross Pounds			0

- Environmental had three Contract Deliverables due in April. The Contract Deliverables were (1) CD0327, “Quarter 3, RCRA Permit Class I Modification Notification Report,” (2) CD0330, Annual Underground Storage Tank Master License Renewal,” and (3) CD0335, “Quarterly PTRAEU and High-Efficiency Particulate Air (HEPA) Radioactive Emission Units Report.” All Contract Deliverables were submitted ahead of the due date.

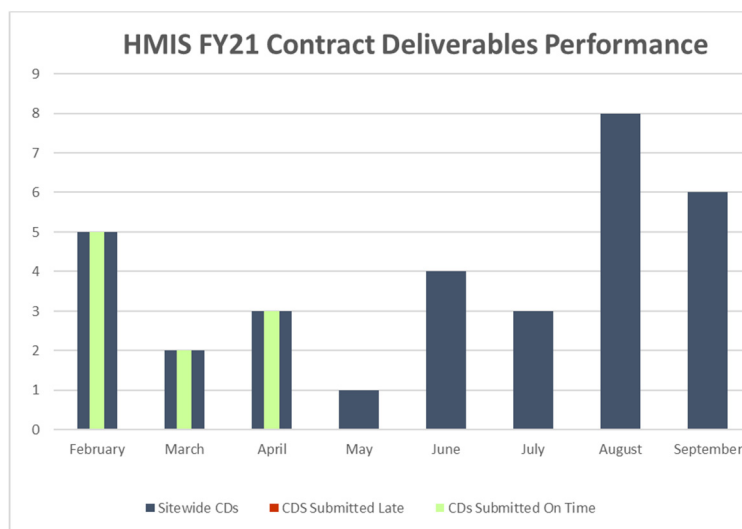


Figure A-2. Environmental CD Performance

- Ecological Monitoring and Compliance (EMC) staff received nine new requests for Ecological Compliance Reviews during the month of April. EMC staff performed six surveys as part of the Ecological Compliance Review process. EMC staff issued Ecological Clearance Notifications to Proceed for four projects and issued No Review Required (NRR) emails for four projects during the month of April.

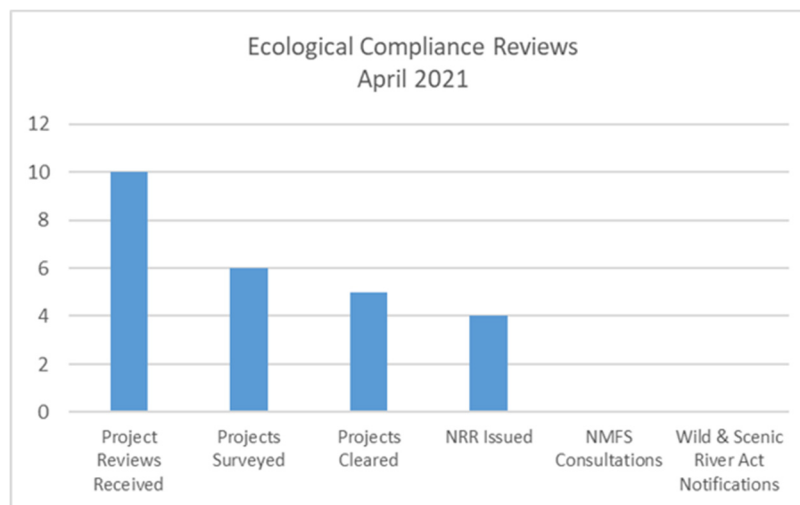


Figure A-3. Ecological Compliance Reviews

- Environmental Cultural and Historic Resource Protection (CHRP) program received three new requests for National Historic Preservation Act (NHPA) Section 106 Project Reviews during the month of April. CHRP staff conducted two surveys as part of the Section 106 process. On behalf of DOE-RL, CHRP staff reviewed five cultural resources documents for professional standards, quality, and compliance with NHPA Section 106 requirements. CHRP issued Cultural Clearance Notifications to proceed for seven projects after completing all Section 106 requirements. Cultural resources monitoring did not occur this month. DOE-RL completed one (1) consultation and signed the associated Memorandum of Agreement.

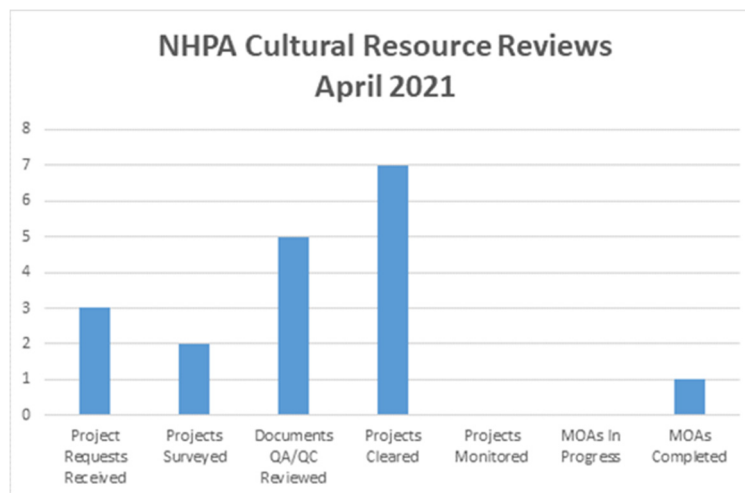


Figure A-4. NHPA Cultural Resource Reviews

- All *Energy Independence and Security Act of 2007* facility energy and water audits for the fiscal year 2021 are now complete.

Table A-3. Energy and Water Audits Fiscal Year 2021

Metric FY2021	Value
Buildings Planned for 2021-2024	216
Buildings Planned for FY 2021	56
Buildings Audited to Date FY 2021	56
Total Goal Square Footage 2021-2024	2,269,176
Total Goal Square Footage FY 2021	612,891
Total Square Footage Audited to Date	612,891
Percentage of FY 2021 Complete to date	100.0%

- Environmental continues to seek projects that increase energy efficiency and qualify for utility incentives from the Bonneville Power Administration.

Table A-4. Bonneville Power Administration Utility Incentives

Metric FY2020-21	Amount
FY 2020-2021 BPA Incentive Budget	\$639,212
Percentage of BPA Budget used	15.9%
Total Amount of incentives received	\$101,534.05
Breakdown by Contractor	
MSA Incentives Earned 10/1/19 – 1/24/21	\$7,750.84
HMIS Incentives Earned 1/25/21 to present	\$4,327.53
CHPRC Incentives Earned 10/1/19 – 1/24/21	\$17,268.67
CPCCo Incentives Earned to date	\$0.00
WRPS Incentives Earned to date	\$72,187.01

*Note: Due to the transfer of Energy Efficiency Incentive funding from other utilities, the total amount of incentives may exceed the original established budget.

- HMIS has the responsibility to integrate, facilitate, and document regulatory agency inspections of DOE facilities on the Hanford Site for all Hanford Site contractors. Those responsibilities include providing support to DOE and Hanford Site contractors during regulatory agency inspections that occur on site and tracking those inspections in the Regulatory Agency Inspection Database (RAID). Below is a summary of the regulatory agency inspections that were supported by HMIS for April 2021.

Table A-5. Sitewide Inspection Status

Sitewide Inspection Support for April 2021							
Company	Other	EPA	ECY	WDOH	DOE	Date	Subject/(Raid #)
WRPS				2		4/14/2021 4/14/2021	<ul style="list-style-type: none"> • WDOH Air Inspection Passive Radial Filters at the 241-SX Tank Farm (2021-014) • WDOH Air Inspection Passive Radial Filters at the 241-S Tank Farm (2021-018)
CPCCo			1			4/14/2021	<ul style="list-style-type: none"> • Ecology RCRA Inspection of the T Plant Complex (2021-020)
TOTALS			1	2			

- Environmental assisted HMIS' Portfolio Management, who was compiling a response to an inquiry from DOE-Headquarters, Office of Environmental Management (DOE-EM). Information provided included a brief overview and comparison of the Tri-Party Agreement (TPA) and the Consent Decree between the State of Washington and DOE; statistics on TPA milestones met and those remaining to complete; a tally of all approved TPA changes over time; and an explanation of some of the main reasons TPA milestones are renegotiated. The local DOE offices were provided the information, which was then forwarded to DOE-EM.
- Environmental Field Support (EFS) staff attended a meeting on April 5, 2021 with representatives from the Department of Energy Office of Legacy Management (DOE-LM) and the Sample Management and Analytical Results Tracking (SMART) subcontractor to discuss establishing a user group for DOE sites that use the Earthsoft EQuIS® software system. A draft survey questionnaire was reviewed by EFS. Once the questionnaire is final, it will be circulated via SurveyMonkey® to environmental data management personnel at various DOE sites and will be used to establish an EQuIS® users group.
- On April 8, Environmental Field Support staff moderated the panel session, Partnerships and Cultural Resources at the Hanford Site at the virtual Northwest Anthropological Conference. The session was organized around the cultural resources working group that meets with DOE monthly, and which HMIS supports. Various members of the working group participated in the panel discussion, including HMIS Archaeologists, DOE, and representatives from area Tribes, the Washington State Department of Archaeology and Historic Preservation, and the Advisory Council on Historic Properties.
- Environmental provided support to the HMIS Project L-888 Southern Area Fire Station Emergency Generator Notice of Construction Application through consultation with the Ecology Air Team on air dispersion modeling methods that provide the most conservative, yet realistic, ambient impact analysis. Based on the scoping models that were performed by HMIS and provided to Ecology for review, Ecology concurred with the method to model the applicable pollutants at the manufacturer's stated high emission rate as stated on the performance specification sheet. The modeling method will be used to perform the ambient impact analysis and health impact assessment.
- Environmental attended an all day workshop lead by DOE and HMIS Operating Excellence to discuss program goals and the function of the HMIS Toxic Air Monitoring Program's Permitting and Modeling support group.
- HMIS coordinated and facilitated several meetings with the OHC safety and health professionals to review the DOE Hanford Workplace Safety Plan. The Hanford-specific plan was developed in response to DOE's Agency Plan and will require changes to Hanford's COVID safety protocols. The safety and health professionals met to coordinate and discuss necessary changes to company policies, procedures, and management directives to ensure consistent site-wide implementation should the new COVID safety protocols be implemented.

- HMIS personnel continued to attend and support the WRPS COVID working group meetings. These meetings are held with WRPS management and the Hanford Atomic Metal Trades Council (HAMTC) Safety-Reps.
- HMIS is currently performing facility asbestos assessments for HMIS facilities that were built in 1985 or earlier. Currently 40 of the 72 asbestos facility assessments have been completed.
- The FY 2021 HMIS Integrated Safety Management System Performance Objectives, Measures, and Commitments was submitted to DOE-RL.
- During April, Radiological Site Services (RSS) Staff completed the first round of a new internal dosimetry intercomparison program. The Dosimetry InterComparison Exercise (DICE) is the first for a DOE-complex working group for sites using GEL Laboratories for radio bioassay (excreta) analyses. This is a Department of Energy Lab Accreditation Program (DOELAP)-approved effort to increase the number of blind audits and reduce costs for users by working together to develop a consensus approach to GEL oversight.
- HMIS completed its annual mailing of dose results to approximately 5450 employees of Hanford contractors and DOE who are monitored for external radiation dose or for internal dose resulting from the intake of radioactive material.

Safeguards, Security & Emergency Response:

- HMIS Emergency Management and Preparedness (EMP) staff participated in the DOE HQ Accountability Drill on April 8, 2021. The drill, conducted on behalf of HQ Office of the Chief Human Capital Officer, involved Hanford EOC Shift Office sending an AtHoc message to DOE RL/ORP and HMIS Continuity of Operations Program Emergency Response Group (CERG) members and tracking CERG availability. One hundred percent accountability of CERG members was achieved within an hour.
- HMIS EMP staff successfully planned and executed the 100/200 Area Annual Protective Action (PA) Drill. This was the first PA drill to be conducted since the onset of the COVID-19 pandemic and included appropriate COVID-19 planning and controls. The drill allowed Hanford Site contractors to demonstrate the implementation of protective actions, meeting the annual requirement. No major issues were identified.
- HMIS EMP staff participated in several discussions with Information Management (IM) staff from HMIS and NorthWind to discuss options for the site's mass notification system. The meetings included presentations from AtHoc (newest version), RAVE (emergency text messaging software), and BNI's use of RAVE and Alertus systems.
- HMIS EMP staff in conjunction with HMIS Information Management briefed Benton and Franklin Emergency Management staff on the new computer software, CenterAlert, for activating Hanford site sirens and sirens offsite along the Columbia River and in Benton and Franklin counties. This software project is scheduled for completion this calendar year.
- HMIS EMP staff provided the following support to OHCs and DOE-RL/ORP:
 - o Emergency Operations Center position-specific training to five students

- o Hanford Incident Command System/Building Emergency Director/Facility Emergency Response Organization Training to 27 students.
- o Building Warden Training for eight students.
- o Supported 11 Hazardous Facility Emergency Response drills (CPCCo – 4, HMIS – 3, WTP – 3, DOE – 1)
- The following Emergency Management Program documents were published:
 - o WRPS/Tank Farms Emergency Planning Hazards Assessment (EPA)
 - CPCCo/CWC-LLBG and WRAP Emergency Planning Hazards Assessments (EPHAs)
 - CPCCo/CWC-LLBG and WRAP Emergency Action Levels (EALs)
 - o HMIS Hanford Patrol personnel successfully completed spring semi-annual weapons qualifications. These qualifications were conducted in accordance with CRD O 473.3A, Chg 1 (Supp. Rev. 0), Protection Program Operations.
 - o HMIS Safeguards and Security (SAS) staff supported CPCCo during performance of a Category I Special Nuclear Material semi-annual inventory. The inventory was conducted successfully with no discrepancies.
 - o HMIS SAS staff remotely attended the 2-day 2021 Energy Facility Contractors Group (EFCOG) Safeguards and Security Working Group Meeting. Topics included security policy updates, Controlled Unclassified Information (CUI) transition from OUO and related to Security Awareness, National Training Center pandemic response and continued operations, Personnel Security vetting and Classified Information Security Enforcement Program Updates.
 - o HMIS Information Security staff Continued Phase 3 of the classified holding reduction project review of classified holdings at the Records Holding Area. During April 32 boxes of records (approximately 96,000 pages) were reviewed and processed for classification/declassification. To date 276 boxes have been reviewed. Due to delays caused by the partial stop-work, the project will continue through FY 2021.
 - o HMIS Hanford Fire Department (HFD) personnel supported CPCCo during the performance of two five-year tank inspections. The inspections on the 300,000 gallon tanks were performed by teams of divers using specialized equipment. HFD provided continuous on-site extraction and rescue support in the event of an emergency



- HMIS HFD personnel continued preparations for the 2021 wildland fire season. One small wildland fire was extinguished on-site, encompassing less than an acre. HFD firefighters conducted refresher training on wildland fire apparatus operations. Prescribed burning operations to reduce fuel loading around firebreaks and vulnerable facilities were initiated, and approximately 5400 cubic yards of tumbleweeds were eliminated.
- HMIS HFD personnel from the Hanford Fire Marshal Office continued to provide support to construction acceptance testing (CAT) and operational acceptance testing (OAT) of Fire Alarm Control Units (FACUs) and Radio Fire Alarm Reporters (RFARs) for 506BA, MO-413, and 2751E. They provided documentation review and support for multiple projects, L-849/850 (including witnessing an acceptance test), 200E/W water tank replacements, L-888, L-894, L-897, L-907, and L-928.

Information Management Services:

- IM Program Management
 - o The following HMEESC Contract Deliverables were submitted on time for DOE review/approval:
 - CD0067 - IT Program Performance Metrics
 - CD0080 - Quarterly Service Level Report for January – March 2021
 - CD0070 - Develop A Plan to Modernize and Migrate Off of the ColdFusion Hanford.gov Environment
 - o HMIS did an analysis and closure package submittal on DOE Plan of Action and Milestone (POA&M) RL-2019-3559 - Insufficient Cybersecurity Staffing. The plan identified 83 full time equivalent (FTE) cybersecurity positions needed to protect Hanford computer systems based on experience and industry benchmarks in comparison to the current staffing levels of 30 FTE.
 - o Using planned maintenance for storage upgrades that required data center shutdowns, a successful Information Technology disaster recovery exercise was completed on April 10th and 11th.
 - o HMIS deployed Safe Links site wide. Safe Links is a feature in Office 365 that provides URL scanning of inbound email messages in mail flow, and time of click verification of URLs and links in email messages.
 - o April 19th through April 29th the Office of Inspector General (OIG) conducted a two week FISMA audit of the Cybersecurity program at the Hanford Site. This audit was to assess the maturity level of eight different controls implemented on site. This was the first OIG audit directly and it used the Cybersecurity Framework approach for its assessment. The audit was a success and the out brief was positive.
 - o HMIS successfully completed the annual software licensing and subscription true-up for the Site Microsoft (MS) Enterprise Agreement. This contract provides desktop services including MS Outlook, MS Office and MS Teams to over 8,000 users; as well as server licenses and Azure cloud services to support IT delivery on Site. This contract is currently valued at approximately \$6M per year.
 - o Core system and installation services procurements are currently with HMIS Contracts for the L-919, Emergency Radio Upgrade. The core system includes repeaters, and

system control equipment to be installed at the CCCF facility on Rattlesnake Mountain, 2220E, and a new telecom hut at the Met Tower (building 622). Channel plans for Hanford Patrol and Hanford Fire are now complete.

- Chief Information Office
 - o HMIS migrated CPCCo Geospatial Information Systems (GIS) users from a separate License Manager Server and GeoDatabase to the site-wide Hanford Enterprise GIS. This cross-contractor teaming results in simplified GIS toolset licensing, elimination of unnecessary separate systems, and streamlined software updates. CPCCo GIS users will now have access to the same tools as other site-wide GIS users at the same release date.
 - o The IT Governance Advisory Board (IT-GAB) officially met to discuss overall objectives including reviewing IT strategies, roadmaps and investments. April submittals included discussion of contractor guidance to meet Federal Information Technology Acquisition Reform Act (FITARA) procurement requirements, discussion of IT Standard and Policies, use of default internet Browsers at Hanford, and decision on making a recommendation to DOE for the Business Management Systems (BMS) Upgrade investment.
 - o The IT Product Management strategy was successfully presented to HMIS management and the Hanford CIOs. There are five active initiatives being worked by the team and criteria being finalized for additional initiatives. A process is being established for appropriately routing resource alignment across NW and with HMIS governance & priority.

Workforce Solutions:

- Hanford Workforce Engagement Center (HWECC)
 - o Since March of 2020, COVID has created consistent hurdles for the Hanford site. The HWECC, even with COVID restrictions/social distancing, has continued assisting current workers, former workers, and family members of those workers. The HWECC has adapted its services and access to meet the needs of most parties needing assistance. The Center is utilizing phone conferencing more often, yet continue to be available in person for individuals with time sensitive issues or concerns. COVID restrictions to this day are minimizing in-person services, but using current COVID guidelines for safe interaction, HWECC stats show continued interface.

Table A-6. Hanford Workforce Engagement Center Events – April 2021

Event	Total
Phone calls	112
Walk-ins	20
E-mails	77
Scheduled Appointments	3
Outreach	5
Monthly Total	217
Grand Total Since April 2018 HWEC Opening	10,084

- o In the month of April, 2021, the HWEC hit a milestone event. The Center recorded and surpassed the 10,000th activity/interaction that corresponded directly to an individual's interaction with a Representative at the HWEC.
- o On April 22nd through the 23rd, 2021 HWEC Representatives virtually attended the Department of Labor's Advisory Board/Part B Toxic Exposure meeting.
- o A Building Warden was identified and trained for the 309 Bradley, Suite 120 where the HWEC is located.

LEGACY BENEFITS – FERNALD WELFARE BENEFITS PLAN

The first quarter, plan year 2021 Fernald Benefits Committee meeting was held virtually on April 21, 2021. The Committee meeting included confirmation that the Group Medical plan contracts were successfully novated from Mission Support Alliance, LLC over to Hanford Mission Integration Solutions, LLC effective January 1, 2021. The Plan's Health Reimbursement Arrangement provider, Willis Towers Watson, was also in attendance and provided the Committee with a 2020 Stewardship Review along with review of the plans metrics from the quarterly dashboard. In addition, the Committee discussed the possibility of replacing the Third-Party Administrator, ADP, due to the high turnover rate of their employees assigned to the administration of the Fernald Plan, which has resulted in an increase to the number of administrative errors. The Committee was informed of the Department of Energy's (DOE's) request to postpone the discussion of a buy-out for the Fernald retiree life insurance benefits until the Hanford contractor transitions have all been finalized. The DOE set a target date of early July, 2021 to discuss this topic further. The Committee meeting concluded with an update on the Plan's statistics and financial status for the quarter ending March 31, 2021.

LEGACY BENEFITS – MOUND WELFARE BENEFITS TRUST

- During the week of April 19th, 2021, 1,522 welcome letters were mailed to Mound participants introducing Hanford Mission Integrations Solutions, LLC as the plan sponsor of the Mound Welfare Benefits Plan effective January 25, 2021. Updated Summary Plan

Descriptions (SPDs) and Summary Material Modifications (SMMs) were included in the communication.

LEGACY BENEFITS – ROCKY FLATS WELFARE BENEFITS TRUST

- During the week of April 19th, 2021, 4,188 welcome letters were mailed to Rocky Flats participants introducing Hanford Mission Integrations Solutions, LLC as the plan sponsor of the Rocky Flats Welfare Benefits Plan effective January 25, 2021. Updated Summary Plan Descriptions (SPDs) and Summary Material Modifications (SMMs) were included in the communication.
- During the month of April, 2021, a Workforce Engagement and Legacy Benefits staff member was appointed as a qualified Buyer's Technical Representative (BTR) upon successfully completing BTR fundamentals course and competency requirements. The BTR plays a critical role in contract administration to ensure the legacy benefit plan and the client, DOE, receive the maximum performance from the subcontractors in accordance with the terms and conditions of the contracts.

CONCERNS – HANFORD WORKFORCE ENGAGEMENT CENTER

National Institute of Occupational Safety and Health (NIOSH) issued a notification on April 30th, 2021 which will take affect May 3rd, 2021. In short, this notification will pause (for a period of 2-4 months) the dose reconstruction process for all Department of Labor (DOL) claimants. This will include new claims, re-work claims, results of current claims, and site specific and individual dosimetry. The HWEC has concern that the pause not only creates additional adjudication time for claimants, it creates another layer of difficulty when educating potential and existing claimants of benefit options. Claims requiring dose reconstruction currently can take 12 months. With this notice, the HWEC expects this reconstruction to increase to a period of up to 18 months. The NIOSH notification is broad and general and the HWEC can only assume that there will be additional unforeseen issues associated with this pause.

UPCOMING EVENTS

- May 5, 2021 - The first quarter, plan year 2021 Mound Board of Trustees meeting will be held.
- May 12, 2021 – The first quarter, plan year 2021 Rocky Flats Board of Trustees meeting will be held.

Engineering, Technology & Projects:

- Engineering
 - o Project L-612. Engineering and Electrical Utilities Operations personnel performed planning activities associated with the performance of comprehensive condition assessment of the north loop the electrical distribution system. This activity will support a change in direction for the performance for Project L-612. The statement of work for acquiring subcontracted expertise is expected to be issued for bids in May 2021.
 - o Alternate Heating for 200 Area Fire Station: Engineering continued activities to assess the available alternatives to upgrade the heating system supporting the 300 Area fire

- station. A list of options was developed and presented to senior management during the reporting period. Detailed work planning will continue in May to develop necessary additional details and initiate procurement of necessary materials and equipment.
- o Code Compliance Associated with Projects L-849 and L-850: HNF-66175, *NFPA 22-2018 Equivalency for Pipe Materials*, was developed and issued to support Projects L-849 and L-850. This equivalency provides the technical rationale for why the selection of polyvinyl chloride (PVC) piping provides an equivalent level of safety to the prescriptive code requirements that would require an alternate material selection. This equivalency was approved by the HMIS Authority Having Jurisdiction and was transmitted for DOE approval via letter number HMIS-2100984 on April 27, 2021.
 - o Infrastructure Systems - System Health and Status Reporting: During the month of April, Contract Deliverable CD0148, “Quarterly System Health Reports,” for January 1, 2021 thru March 31, 2021 was transmitted to DOE for review (HMIS-2102049 dated April 27, 2021). This correspondence included a total of 20 reports addressing system health associated with configured systems in the areas of water/sewer utilities (four reports), safeguards and security (one report), electrical utilities (five reports), information technology (five reports), fire systems (four reports), and one report addressing the Site’s roads.
 - o Community STEM Support. A representative from HMIS Engineering supported the STEM Like Me!SM Engineering Design Contest pilot. As part of this event, a volunteer STEM professional joins middle school classes virtually to share some exciting engineering career options, why they love their career, and introduce students to the Engineering Design Process. For the purpose of the pilot program, volunteers used a simple 5-step design process. Volunteers also introduced the STEM Like ME!SM Engineering Design Competition, where students were encouraged to develop a solution to a real world problem and compete against other students in our region for the opportunity to win prizes.
 - Technology & Enterprise Architecture
 - o IT Capital Planning and Investment Control (CPIC)
 - Submitted April monthly data into eFolio for Capital Planning Investment Control (CPIC) Exhibits for IT investments. This fulfills Contract Deliverable CD0066 – 1st Monthly CPIC Exhibit 53 and Exhibit 300 for IT Investments.
 - o IT Standards and Policies as part of CD0065
 - Building SharePoint List of all IT standards and policies and collecting data for review by the IT Governance Advisory Board.
 - Building PowerBI App to display IT standards and policies for all Hanford users to view the standards and policies in one place.
 - Drafted procedure for the IT standards and going through reviews in the HMIS Procedure System.
 - o Enterprise Architect (EA) Program Plan
 - Finalizing EA program plan in accordance with Contract Deliverable CD0069 – Enterprise Architecture Management Plan is on target for delivery May 2021.

2.0 MAJOR ISSUES

Nothing to report.

3.0 PROGRAM RISK ASSESSMENT

The HMIS program risk assessments are outlined in the following subsections.



3.1 HMIS I&SS Mission Key Risks

- **BCRs:** No BCRs were processed in April that impact the project's MR or SM profile.
- **Risk Analysis:** No risk analysis conducted in April.
- **Current Risk Posture:**





Table A-7. I&SS Risk Posture

Period	Realized	Key	Opened	Closed	Unassigned	Total Risks
March	0	6	0	0	0	33
April	0	6	0	0	0	33

Table A-8. I&SS Key Risks

Unmitigated Risk Impacts		Assessment		Comments															
		Month	Trend																
EU- Mission Risks																			
Explanation of major changes to the program monthly spotlight chart: No major changes to the Spotlight Charts in April.																			
Realized Risks (Risks that are currently impacting project cost/schedule)																			
No Realized Risks in April.																			
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)																			
No Critical Risks in April.																			
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																			
EU-0003-T: Substation Transformer Failure Legacy Risk #: 1200 & PWEU-0003-T	If any of the four substation transformers fails, OHC operations may be impacted, and additional costs may be incurred. Risk Handling Strategy: Mitigate Probability: Unlikely (10%) Worst Case Impacts: \$6,000K, 0 Days			Risk Trigger: Degradation of transformers lead to transformer failure. <table border="1"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Repair 451B transformer.</td><td>TBD</td><td>0</td></tr><tr><td>Plan and perform preventative and corrective maintenance</td><td>Ongoing</td><td>N/A</td></tr><tr><td>Replace transformers when warranted.</td><td>Ongoing</td><td>N/A</td></tr><tr><td>Conduct system prioritization evaluation</td><td>TBD</td><td>0</td></tr></tbody></table> Mitigation Action Assessment: No major changes in the month of April. A9 substation continues to be monitored with no indications of potential failure. 451B Transformer LTC leak has been stopped, re-drafting statement of work for repair effort. Repairs forecasted to start in July.	Mitigation Action(s)	FC Date	%	Repair 451B transformer.	TBD	0	Plan and perform preventative and corrective maintenance	Ongoing	N/A	Replace transformers when warranted.	Ongoing	N/A	Conduct system prioritization evaluation	TBD	0
Mitigation Action(s)	FC Date	%																	
Repair 451B transformer.	TBD	0																	
Plan and perform preventative and corrective maintenance	Ongoing	N/A																	
Replace transformers when warranted.	Ongoing	N/A																	
Conduct system prioritization evaluation	TBD	0																	

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	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
WSU- Mission Risks													
Explanation of major changes to the program monthly spotlight chart: No major changes in April.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
No Realized Risks in April.													
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)													
WSU-0006-T: 283W Water Treatment Facility Water Production limitation Legacy Risk #: 1526 & PWWSU-0006-T	If the 283W Water Treatment Facility cannot produce enough potable water for the Hanford Site because of the 1,500gpm permit limitations, then potable water production demands will not be met, causing impacts to cleanup schedules or shutdown of certain Hanford site operations. Risk Handling Strategy: Avoid Probability: Likely (80%) Worst Case Impacts: \$0K, 0 Days			Risk Trigger: 283W WTF cannot produce enough potable water for the Hanford Site. <table border="1"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Completion of L-897 200 Area Water Treatment Plant (DFLAW Essential)</td><td>FY2022</td><td>30</td></tr></tbody></table> Mitigation Action Assessment: Project L-897, Central Plateau Water Treatment Plant (DFLAW Essential), is scheduled for completion FY2022. This will reduce the likelihood of not being able to produce enough potable water for the Hanford Site. If DFLAW commissioning activities commence prior to the commissioning of the new CPWTF, then operational controls of the distribution of sanitary water from the existing 283W clearwells will be put into place, including: <ul style="list-style-type: none">Limiting flow out of the clearwell to 1,200gpmUtilizing available storage reservoirs at 283E, 283EA and 283WA to supplement sanitary water peak demandsAdministratively control or limit non-essential potable water demands such as irrigation water supply These activities are discussed in HNF-64684, 200W Sanitary Water System Capacity Evaluation. In April, HMIS lowered the procurement notification thresholds and negotiations of Terms and Conditions are driving a projected delay in Membrane Contract award and downstream install activities. Ecology has indicated that they have not completed their NOC internal review and initiated the public comment period. One of the positions for the reviewers is currently vacant, and it is assumed they would need to include the Nuclear Waste Program Manager (i.e., Richland Office Program Manager). A downward trend indicates a decrease in confidence as a result of delays in membrane contract negotiations for Project L-897.	Mitigation Action(s)	FC Date	%	Completion of L-897 200 Area Water Treatment Plant (DFLAW Essential)	FY2022	30			
Mitigation Action(s)	FC Date	%											
Completion of L-897 200 Area Water Treatment Plant (DFLAW Essential)	FY2022	30											
WSU-0020-T: TEDF Failure impacts discharge of waste water Legacy Risk #: 3175 & PWWSU-0020-T	If HMIS Water Utilities (WU) is unable to discharge wastewater from the 283W Water Treatment Facility (WTF) or new Central Plateau Water Treatment Facility (CPWTF) due to an extended failure of the TEDF discharge line or lift station, then the ability to produce potable water for the Hanford Site will be impacted, causing potential site wide water outages, impacting cleanup operations and fire suppression requirements for the Hanford Site. Risk Handling Strategy: Accept Probability: Somewhat Likely (50%) Worst Case Impacts: \$15,000K, 0 Days			Risk Trigger: WU is unable to discharge wastewater due to an extended failure of TEDF. <table border="1"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Ongoing communication with WRPS during their performance of emergency repairs to the lift station</td><td>Ongoing</td><td>NA</td></tr><tr><td>Use 3,000 gallon water trucks to haul wastewater to TEDF</td><td>As Needed</td><td>NA</td></tr></tbody></table> Mitigation Action Assessment: No major changes in the month of April. Rely on WRPS to perform emergency repairs of the lift station in the event of failure. Ongoing discussions with DOE-RL to implement an emergency provision that includes using 3,000 gallon water trucks to haul wastewater to TEDF. The current analysis recognizes there are up to five days of waste water holding capabilities before needing to use water trucks or find an alternative means of wastewater diversion.	Mitigation Action(s)	FC Date	%	Ongoing communication with WRPS during their performance of emergency repairs to the lift station	Ongoing	NA	Use 3,000 gallon water trucks to haul wastewater to TEDF	As Needed	NA
Mitigation Action(s)	FC Date	%											
Ongoing communication with WRPS during their performance of emergency repairs to the lift station	Ongoing	NA											
Use 3,000 gallon water trucks to haul wastewater to TEDF	As Needed	NA											

SECTION A

	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
WSU- Mission Risks																			
WSU-0021-T: Water Line Failure under TSCR Pad Legacy Risk #: 3176 & PWWSU-0021-T	If the 12" raw water line running under the proposed Tank Side Cesium Removal (TSCR) pad fails due to increased heavy traffic, then looped raw water supply to the 200E tank farms (TF) and fire suppression systems will be impacted for extended periods of time, causing operations to enter into Limited Condition of Operations (LCOs). Risk Handling Strategy: Avoid Probability: Likely (75%) Worst Case Impacts: \$750K, 0 Days			Risk Trigger: The raw water line located under the proposed TSCR pad fails due to increased heavy traffic. <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Install a new raw water line routed around the proposed location of TSCR and associated waste transfer lines or paths of heavy equipment travel. (L-928)</td><td>FY2023</td><td>0</td></tr><tr><td>Perform ERMA corrective maintenance waterline repairs while management exploits scheduling/personnel efficiencies where able.</td><td>Ongoing</td><td>NA</td></tr></table> Mitigation Action Assessment: No major changes in the month of April . Project L-928, Re-Route 12" Raw Water Line Near 241AP Farm (TSCR) (DFLAW Priority), has a completed draft SOW and initiated review. Planning is forecasted to be complete 07/2021. This will avoid a potential raw water line break. TSCR pad operational date is forecasted for September 2021 increasing the likelihood of a water line failure.	Mitigation Action(s)	FC Date	%	Install a new raw water line routed around the proposed location of TSCR and associated waste transfer lines or paths of heavy equipment travel. (L-928)	FY2023	0	Perform ERMA corrective maintenance waterline repairs while management exploits scheduling/personnel efficiencies where able.	Ongoing	NA						
Mitigation Action(s)	FC Date	%																	
Install a new raw water line routed around the proposed location of TSCR and associated waste transfer lines or paths of heavy equipment travel. (L-928)	FY2023	0																	
Perform ERMA corrective maintenance waterline repairs while management exploits scheduling/personnel efficiencies where able.	Ongoing	NA																	
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																			
WSU-0016-T: PFP Contamination Reaches 283W Water Treatment Facility Legacy Risk #: 1955 & PWWSU-0016-T	If Plutonium Finishing Plant (PFP) radiological contamination reaches the 283W Water Treatment Facility, water purveyance abilities to 200W Area will be impacted resulting in sanitary and raw water supply shutdowns to 200W and 200E Area buildings. Risk Handling Strategy: Accept Probability: Unlikely (20%) Worst Case Impacts: 0 days, \$15.0M			Risk Trigger: During PFP demolition, PFP radiological contamination reaches the 283W WTF prompting water supply shutdown to 200W and 200E areas. <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>No mitigation actions planned at this time.</td><td>N/A</td><td>N/A</td></tr></table> Mitigation Action Assessment: No major changes in the month of April . No mitigation actions are currently identified. Risk will continue to be monitored throughout the remainder of the PFP mission. CHPRC is performing D&D activity for PFP project with a forecasted completion of FY2021. The PFP Closure Project team resumed demolition activities. The last remaining steam line associated with 234-5Z was size reduced and loaded out, officially completing the demolition of the PFP main processing facility. Risk will be evaluated for closure.	Mitigation Action(s)	FC Date	%	No mitigation actions planned at this time.	N/A	N/A									
Mitigation Action(s)	FC Date	%																	
No mitigation actions planned at this time.	N/A	N/A																	
	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
MMP- Mission Risks																			
Explanation of major changes to the program monthly spotlight chart: No major changes in April .																			
Realized Risks (Risks that are currently impacting project cost/schedule)																			
No Realized Risks in April .																			
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)																			
MMP-0001-T: Roof and HVAC Operating in Degraded State Legacy Risk #: 2073 & RES-0002-T	If sitewide roof and HVAC units continue to operate in a state of degradation because they are currently operating past their 20-year design life, then further deterioration will continue at an increasing rate resulting in impacts to mission critical support functions and poor occupant working conditions. Risk Handling Strategy: Avoid Probability: Somewhat Likely (70%) Worst Case Impacts: \$15,000K, 0 days			Risk Trigger: HVAC units fail before being replaced. <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Replace end of design life roof. Project L-796</td><td>FY2021</td><td>0</td></tr><tr><td>Replace end of design life roof. Project L-914</td><td>FY2022</td><td>0</td></tr><tr><td>Replace end of design life HVAC units. Project L-915</td><td>FY2022</td><td>0</td></tr><tr><td>Perform routine inspections and maintenance, including minor repairs as needed and as able.</td><td>Ongoing</td><td>NA</td></tr></table> Mitigation Action Assessment: No major changes in the month of April . Projects L-796, L-914, and L-915 are scheduled to replaced roofs and HVAC units. The completion of the projects will reduce the likelihood of roof leaks and HVAC failures. In April, subcontractor for L-796 was scheduled for mobilization on 4/26/2021 and it was determined not possible on 4/21/2021. Currently mobilization is scheduled to begin Mid-May.	Mitigation Action(s)	FC Date	%	Replace end of design life roof. Project L-796	FY2021	0	Replace end of design life roof. Project L-914	FY2022	0	Replace end of design life HVAC units. Project L-915	FY2022	0	Perform routine inspections and maintenance, including minor repairs as needed and as able.	Ongoing	NA
Mitigation Action(s)	FC Date	%																	
Replace end of design life roof. Project L-796	FY2021	0																	
Replace end of design life roof. Project L-914	FY2022	0																	
Replace end of design life HVAC units. Project L-915	FY2022	0																	
Perform routine inspections and maintenance, including minor repairs as needed and as able.	Ongoing	NA																	

	Unmitigated Risk Impacts	Assessment		Comments
		Month	Trend	
WSU- Mission Risks				
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)				
No High Risks in April.				



3.2 HMIS I&IS Mission Key Risks

- **BCRs:** No BCRs were processed in April that impact the project's MR or SM profile.
- **Risk Analysis:** No risk analysis conducted in April.
- Current Risk Posture:





Table A-9. I&IS Risk Posture

Period	Realized	Key	Opened	Closed	Unassigned	Total Risks
March	0	3	0	0	0	13
April	0	3	0	0	0	13

Table A-10. I&IS Key Risks

	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
I&IS- Mission Risks																			
Explanation of major changes to the program monthly spotlight chart: No major changes to the Stoplight Charts in April.																			
Realized Risks (Risks that are currently impacting project cost/schedule)																			
No Realized Risks in April.																			
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)																			
FLT-0007-O: New Fleet Facility risk avoidance Legacy Risk #: 1747 and SSIM-0013--O	If HMIS is budgeted and approved to build a new Fleet facility, then risks associated with maintaining and operating the current 2711E Fleet Equipment Maintenance Shop can be closed resulting in greatly reduced risk exposure and higher level of work efficiency Risk Handling Strategy: Exploit Probability: Likely (75%) Worst Case Impacts: \$0, 0 days			<p>Risk Trigger: A new fleet shop complex is designed and constructed. Operations at the new fleet shop complex will mitigate four existing risks.</p> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Complete a Fleet Services Facility Master Plan to determine the long term goal of the fleet program</td><td>Complete</td><td>100</td></tr><tr><td>Identify a facility design that accommodates all electrical and safety needs for long-term fleet service’s needs (L-907).</td><td>FY2022</td><td>0</td></tr><tr><td>Complete project L-908, Auto/Truck Shop and Storage, based on L-907 design.</td><td>FY2024</td><td>0</td></tr><tr><td>Complete project L-909, Heavy Equipment Shop and Storage based on L-907 design.</td><td>FY2025</td><td>0</td></tr></table> <p>Mitigation Action Assessment: No major changes in the month of April. BCR VMSA-20-027 was approved on 24 February 2020 for \$24.1K towards conceptual design on L-907 within the PMB. Project L-907 will design the fleet shop complex and current projects L-908 & L-909 will see the construction of the fleet shop complex; exploiting this opportunity. Design contract awarded 1/25/2021. Pre-conceptual mini-review will be held on 4/29/2021. 30% design package is due 6/14/2021. 30% design package due date revised to align with A/E deliverable schedule.</p>	Mitigation Action(s)	FC Date	%	Complete a Fleet Services Facility Master Plan to determine the long term goal of the fleet program	Complete	100	Identify a facility design that accommodates all electrical and safety needs for long-term fleet service’s needs (L-907).	FY2022	0	Complete project L-908, Auto/Truck Shop and Storage, based on L-907 design.	FY2024	0	Complete project L-909, Heavy Equipment Shop and Storage based on L-907 design.	FY2025	0
Mitigation Action(s)	FC Date	%																	
Complete a Fleet Services Facility Master Plan to determine the long term goal of the fleet program	Complete	100																	
Identify a facility design that accommodates all electrical and safety needs for long-term fleet service’s needs (L-907).	FY2022	0																	
Complete project L-908, Auto/Truck Shop and Storage, based on L-907 design.	FY2024	0																	
Complete project L-909, Heavy Equipment Shop and Storage based on L-907 design.	FY2025	0																	

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	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
I&IS- Mission Risks																
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																
FLT-0006-T: Leak detection failure at fuel station leads to environmental impacts. Legacy Risk #: 1783 & SSIM-0008-T	If leak detection equipment is no longer serviceable due to system degradation, then petroleum, oil and lubricant (POL) leaks into the soil could occur without HMIS knowledge potentially impacting ground soil and surrounding environment. Risk Handling Strategy: Avoid Probability: Somewhat Likely (33%) Worst Case Impacts: \$70,000, 0 days			Risk Trigger: Leak detection equipment fails from age, resulting in leaks of oil and lubricant (POL) into the soil. <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Replace fuel station with project L-923, Replace 200E Area Fuel Station.</td><td>FY2026</td><td>0</td></tr></table> Mitigation Action Assessment: No major changes in the month of April. Mitigation action in place to avoid the leak detection equipment failure risk by completing reliability project L-923, Replace 200E Area Fuel Station. L-923 is on the FY20 RPIP for FY26.	Mitigation Action(s)	FC Date	%	Replace fuel station with project L-923, Replace 200E Area Fuel Station.	FY2026	0						
Mitigation Action(s)	FC Date	%														
Replace fuel station with project L-923, Replace 200E Area Fuel Station.	FY2026	0														
RDS-0002-T: 2S and 11A Risk of Failure Legacy Risk #: 1832 & PWRDS-0002-T	If routes 2S and 11A remain at risk of failure, then there is a potential loss of construction truck ingress/egress and alternate site evacuation route. Risk Handling Strategy: Mitigate Probability: Likely (90%) Worst Case Impacts: \$13,473K, 0 Days			Risk Trigger: Age and past weather conditions have led to continued degradation of roads. Continued degradation and future demand future traffic needs not being met would lead to risk being realized. <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Conduct 2S/4S road study.</td><td>Complete</td><td>100</td></tr><tr><td>Complete Roads Master Plan that provides a basis of when these particular routes are planned to be addressed beyond maintenance activities.</td><td>FY2022</td><td>10</td></tr><tr><td>Increase/accelerate maintenance on roads. (Crack seal, pothole repairs, shoulder repairs, etc.)</td><td>Ongoing</td><td>NA</td></tr></table> Mitigation Action Assessment: No major changes in the month of April. Road study recommended that the roads should be in 2-lane configuration. Scope statement submitted for Reliability Project – L-941. Road projects will be reprioritized by DOE and identified by Reliability Project Task Order. Roads Master Plan update is now a contract deliverable (CD-0013) actively being revised to meet 6/1/2021 due date.	Mitigation Action(s)	FC Date	%	Conduct 2S/4S road study.	Complete	100	Complete Roads Master Plan that provides a basis of when these particular routes are planned to be addressed beyond maintenance activities.	FY2022	10	Increase/accelerate maintenance on roads. (Crack seal, pothole repairs, shoulder repairs, etc.)	Ongoing	NA
Mitigation Action(s)	FC Date	%														
Conduct 2S/4S road study.	Complete	100														
Complete Roads Master Plan that provides a basis of when these particular routes are planned to be addressed beyond maintenance activities.	FY2022	10														
Increase/accelerate maintenance on roads. (Crack seal, pothole repairs, shoulder repairs, etc.)	Ongoing	NA														
Unassigned Risks (Pending ownership of identified risks/opportunities)																
No Unassigned Risks in April.																



3.3 HMIS MA Mission Key Risks

- **BCRs:** No BCRs were processed in April that impact the project's MR or SM profile.
- **Risk Analysis:** No risk analysis conducted in April.
- **Current Risk Posture:**

Table A-11. MA Risk Posture

Period	Realized	Key	Opened	Closed	Unassigned	Total Risks
March	0	1	0	0	1	18
April	0	1	0	0	1	18

Table A-12. MA Key Risks

	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
MISSION ASSURANCE- Mission Risks													
Explanation of major changes to the program monthly spotlight chart: No major changes to the Stoplight Charts in April.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
No Realized Risks in April.													
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)													
No Critical Risks in April.													
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)													
MA-0019-T: Building 6266 HVAC failure. Legacy Risk #: 1856 & ESHQ-0019-T	If the 6266 Building HVAC system experiences a complete failure, then HMIS is at risk of operational degradation in providing radiological instrument calibration and dosimetry services to the Hanford site. Risk Handling Strategy: Mitigate Probability: Likely (75%) Worst Case Impacts: \$1,461K, 0 Days			<div>Risk Trigger: The 6266 building is currently running on backup compressor because the primary has failed. Every quarter, an outage of 2-3 days occurs and if lack of resources or parts is encountered and an outage lasted longer than 3 days it would be critical and force a move.</div> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Process dosimeters at 805 Goethals and PNNL as needed.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Complete construction phase of Project L-797, Key Facilities HVAC Replacements.</td><td>FY21</td><td>0</td></tr></table> <div>Mitigation Action Assessment: No major changes in the month of April. Alternatives analysis conducted; awaiting prospective bids from contractors before project is awarded to replace the HVAC system. Bids are scheduled to be completed by the end of summer 2021 and the project is scheduled for 2021. Some dosimeters could be processed at 805 Goethals and PNNL to provide equipment calibration services, but those alternatives are highly inefficient.</div>	Mitigation Action(s)	FC Date	%	Process dosimeters at 805 Goethals and PNNL as needed.	Ongoing	NA	Complete construction phase of Project L-797, Key Facilities HVAC Replacements.	FY21	0
Mitigation Action(s)	FC Date	%											
Process dosimeters at 805 Goethals and PNNL as needed.	Ongoing	NA											
Complete construction phase of Project L-797, Key Facilities HVAC Replacements.	FY21	0											
Unassigned Risks (Pending ownership of identified risks/opportunities)													
MA-0005-T: Unreadable Records from Radiological Exposure Legacy Risk #: 1465 & ESHQ-0005-T	If Radiological Exposure records become unreadable, then HMIS would be unable to provide these records in support of EEOICP/FOIA and Privacy Act requests. The maintenance of these records is also a regulatory requirement and the inability to sustain them is a direct breach of a federal requirement. Radiological record retention is a requirement of 10 CFR 830 & 835. HMIS Comment: No major changes in April. Current handling of the records has been reduced to an as needed basis to reduce degradation. Digitization and indexing is not currently included in the HMIS scope and is being performed by ITG directly through DOE. HMIS is not contractually impacted by the penalties under the EEOICPA.												



3.4 HMIS SES Mission Key Risks

- **BCRs:** No BCRs were processed in April that impact the project's MR or SM profile.
- **Risk Analysis:** No risk analysis conducted in April.
- **Current Risk Posture:**







Table A-13. SES Risk Posture

Period	Realized	Key	Opened	Closed	Unassigned	Total Risks
March	0	4	0	0	1	18
April	0	4	0	0	1	18

Table A-14. SES Key Risks

	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
SES - Mission Risks													
Explanation of major changes to the program monthly spotlight chart: No major changes to the Stoplight Charts in April.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
No Realized Risks in April.													
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)													
SES-0012-T: Fire, Medical, Security, and Emergency communication could fail if emergency radios and supporting site infrastructure fail. Legacy Risk #: 1959 & ES-0012-T	If Emergency Radios and supporting site infrastructures fail because they're outdated and no longer supported for repair by the manufacturer, then Fire, Medical, Security, and Emergency communication will be impacted, delaying their response to the Hanford site. Risk Handling Strategy: Avoid Probability: Somewhat likely (40%) Worst Case Impacts: \$0, 0 Days			Risk Trigger: Hardware/software that is no longer supported fails and cannot be repaired by the manufacturer. <table border="1"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Replace hand-held radios for Fire, Patrol, and Emergency Management (Project L919-7040).</td><td>07/2021</td><td>0</td></tr><tr><td>Replace repeaters and site infrastructure that supports the Hanford site emergency radio system (Project L919-7140).</td><td>08/2021</td><td>0</td></tr></tbody></table> Mitigation Action Assessment: No major changes in the month of April. Project L-919 will avoid this risk. Questions from contracts regarding the proposal prompted a request for a revised proposal answering those questions. Award was expected in the June 2020 reporting period. The questions raised during the review ultimately led to the decision to not award the contract under the current requisition. The vendor, Wildflower, will not be used for the procurement unless pricing for labor and services can be verified. The SOW was split in two phases: one for design/configuration services & one for installation of radios and radio system core (construction contract). The services procurement contract was awarded 9/30/2020. Construction contract SOW was approved and posted. The award date of the construction contract has been delayed for several months for many reasons, including construction contract determination, approvals for job walk and HMIS template transition. Upon detailed review of the SOW, it was determined that design was not to the point that would support a Firm Fixed Price bid and the RFP was canceled. RFP will be re-issued following further development of the design and Bill of Materials. Delays awarding the installation contract and the materials procurement continue to push back activity L919-7140 to install repeaters and site infrastructure.	Mitigation Action(s)	FC Date	%	Replace hand-held radios for Fire, Patrol, and Emergency Management (Project L919-7040).	07/2021	0	Replace repeaters and site infrastructure that supports the Hanford site emergency radio system (Project L919-7140).	08/2021	0
Mitigation Action(s)	FC Date	%											
Replace hand-held radios for Fire, Patrol, and Emergency Management (Project L919-7040).	07/2021	0											
Replace repeaters and site infrastructure that supports the Hanford site emergency radio system (Project L919-7140).	08/2021	0											

SECTION A

	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
SES - Mission Risks																
SESHFES-0011-T: HFD responses into PFP's RBA may result in contaminated equipment and apparatus. Legacy Risk #: 1972 & ES-0014-T	If there is a Hanford Fire Department (HFD) emergency response to the PFP radiological buffer area for a fire, hazmat or medical event there may be a significant potential for HFD material as well as apparatus to be contaminated, thereby losing that equipment and/or apparatus for use elsewhere on the Hanford site. Risk Handling Strategy: Accept Probability: Unlikely (25%) Worst Case Impacts: \$3,000K, 0 Days			Risk Trigger: Emergency response to PFP radiological buffer area for a fire, hazmat or medical event. <table border="1"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Develop strategies to minimize the opportunity to contaminate Emergency Services apparatus and equipment.</td><td>Complete</td><td>100</td></tr></tbody></table> Mitigation Action Assessment: No major changes in the month of April . Response strategies have been developed to minimize contamination of Emergency Services apparatus and equipment. As PFP progress continues, the probability of contamination will slowly reduce. This risk will continue to be monitored as PFP progresses through its mission.	Mitigation Action(s)	FC Date	%	Develop strategies to minimize the opportunity to contaminate Emergency Services apparatus and equipment.	Complete	100						
Mitigation Action(s)	FC Date	%														
Develop strategies to minimize the opportunity to contaminate Emergency Services apparatus and equipment.	Complete	100														
SES-0025-T: Response into a radio dead-zone. Legacy Risk #: ES-0025-T	If Emergency Response Personnel cannot communicate with each other or a controlling agency because radio communication is unavailable, then response into or operating in an unknown environment will potentially impact the health and safety of those responders. Risk Handling Strategy: Avoid Probability: Likely (75%) Worst Case Impacts: \$0, 0 Days			Risk Trigger: Emergency response to dead-zone or signal shadow on site where responders lose radio communication. <table border="1"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Install signal repeaters at identified dead-zones and signal shadows on site.</td><td>TBD</td><td>0</td></tr></tbody></table> Mitigation Action Assessment: No major changes in the month of April . Avoid. Install signal repeaters at identified dead-zones and signal shadows within WTP. Signal repeaters would need to be established as permanent equipment that is reliable in all-weather environments and available 24/7. Signal repeaters must be compatible with existing and anticipated equipment. A work order to install the repeaters is in process, but there is no forecast completion date at this time.	Mitigation Action(s)	FC Date	%	Install signal repeaters at identified dead-zones and signal shadows on site.	TBD	0						
Mitigation Action(s)	FC Date	%														
Install signal repeaters at identified dead-zones and signal shadows on site.	TBD	0														
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																
SESHFES-0006-T: Catastrophic failure of utilities or structure leaves a Hanford fire station uninhabitable. Legacy Risk #: 1727 & ES-0006-T	If a Hanford fire station (100/200/300 areas) becomes uninhabitable for fire and medical responders due to a catastrophic failure of utilities or structure then responders and apparatus will need to be relocated increasing response times to incidents. Risk Handling Strategy: Mitigate Probability: Unlikely (20%) Worst Case Impacts: \$20,000K, 0 Days			Risk Trigger: Catastrophic failure of utilities or structure of one or more of the three Hanford fire stations. <table border="1"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Electrical systems have been updated once, backup generators installed to support facilities.</td><td>Complete</td><td>100</td></tr><tr><td>Supplemental window air conditioners are used.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Complete project L-888 400 Area Fire Station</td><td>05/2023</td><td>10</td></tr></tbody></table> Mitigation Action Assessment: No major changes in the month of April . Several supplemental window air conditioners were installed at the 300 area fire station in July. Power fluctuations in the 300 area fire station required corrective maintenance on internal electrical equipment in August 2020. Environmental considerations are being monitored at all three facilities. All three facilities are manned 24/7 with little modifications past their original design and construction, including 1960's commonly used building materials. Electrical systems have been updated once, backup generators installed to support facilities. Supplemental window air conditioners are used and one roof was repaired fall 2019. Project L-888, 400 Area Fire Station will partially mitigate this risk. L-888 Construction RFP was put on hold; cannot obtain pricing until DOE-RL issues the L-888 Task Order (RPTO-009) to HMIS. More project specific information can be found within the L-888 stoplight.	Mitigation Action(s)	FC Date	%	Electrical systems have been updated once, backup generators installed to support facilities.	Complete	100	Supplemental window air conditioners are used.	Ongoing	NA	Complete project L-888 400 Area Fire Station	05/2023	10
Mitigation Action(s)	FC Date	%														
Electrical systems have been updated once, backup generators installed to support facilities.	Complete	100														
Supplemental window air conditioners are used.	Ongoing	NA														
Complete project L-888 400 Area Fire Station	05/2023	10														
Unassigned Risks (Pending ownership of identified risks/opportunities)																
No Unassigned Risks in April .																

3.5 HMIS IMS Mission Key Risks

- **BCRs:** No BCRs were processed in April that impact the project's MR or SM profile.
- **Risk Analysis:** No risk analysis conducted in April.
- **Current Risk Posture:**

Table A-15. IMS Risk Posture

Period	Realized	Key	Opened	Closed	Unassigned	Total Risks
February	0	9	0	0	0	12
March	0	9	0	0	0	17

Table A-16. IMS Key Risks

	Unmitigated Risk Impacts	Assessment		Comments																																	
		Month	Trend																																		
IMS- Mission Risks																																					
Explanation of major changes to the program monthly spotlight chart: No major changes to the Stoplight Charts in April.																																					
Realized Risks (Risks that are currently impacting project cost/schedule)																																					
No Realized Risks in April.																																					
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)																																					
IMS-0003-T: Unaware of Network Intrusion Legacy Risk #: 1206 & InfoM-0003-T	If HMIS is unaware of an ongoing intrusion into the network, due to an inability to detect the intruder, then a significant information compromise will occur. Risk Handling Strategy: Mitigate Probability: Somewhat Likely (50%) Worst Case Impacts: \$2.0M, 0 Days	<div><div></div></div>	<div><div></div></div>	<p>Risk Trigger: During day to day operations, an intrusion to the network is experienced.</p> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Increase staff by 2 FTEs for incident response and analysis.</td><td>Complete</td><td>100</td></tr><tr><td>Integrate network operations center with engineering and cyber security to form security operations center.</td><td>Complete</td><td>100</td></tr><tr><td>Improve internal controls, auditing, monitoring, and alerting capabilities.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Incident detection and log correlation tools have been improved, activity ongoing.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Review incident handling guidelines and implement appropriate recommendations.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Develop incident scenarios and perform exercises regularly.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Provide additional training on security tools to existing staff.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Improved incident response and analysis capability.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Use outside resources to expedite improvements.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Implement XSOAR Automation Software</td><td>04/2021</td><td>98%</td></tr></table> <p>Mitigation Action Assessment: No major changes in the month of April. Internal process improvements continue to be conducted to improve monitoring and alerting. In house training is ongoing to improve incident response and user awareness. Administrative controls are employed to prevent introduction of malware into the network. In April, XSOAR is waiting on final SQA paperwork and approvals to be put into production. An expedited request was made for mid-May for final SQA paperwork. Once SQA approval is received final procurement can take place and implementation can occur. Forecasted deployment date is set for early June to obtain approvals needed.</p>	Mitigation Action(s)	FC Date	%	Increase staff by 2 FTEs for incident response and analysis.	Complete	100	Integrate network operations center with engineering and cyber security to form security operations center.	Complete	100	Improve internal controls, auditing, monitoring, and alerting capabilities.	Ongoing	NA	Incident detection and log correlation tools have been improved, activity ongoing.	Ongoing	NA	Review incident handling guidelines and implement appropriate recommendations.	Ongoing	NA	Develop incident scenarios and perform exercises regularly.	Ongoing	NA	Provide additional training on security tools to existing staff.	Ongoing	NA	Improved incident response and analysis capability.	Ongoing	NA	Use outside resources to expedite improvements.	Ongoing	NA	Implement XSOAR Automation Software	04/2021	98%
Mitigation Action(s)	FC Date	%																																			
Increase staff by 2 FTEs for incident response and analysis.	Complete	100																																			
Integrate network operations center with engineering and cyber security to form security operations center.	Complete	100																																			
Improve internal controls, auditing, monitoring, and alerting capabilities.	Ongoing	NA																																			
Incident detection and log correlation tools have been improved, activity ongoing.	Ongoing	NA																																			
Review incident handling guidelines and implement appropriate recommendations.	Ongoing	NA																																			
Develop incident scenarios and perform exercises regularly.	Ongoing	NA																																			
Provide additional training on security tools to existing staff.	Ongoing	NA																																			
Improved incident response and analysis capability.	Ongoing	NA																																			
Use outside resources to expedite improvements.	Ongoing	NA																																			
Implement XSOAR Automation Software	04/2021	98%																																			







SECTION A

<div>IMS-0011-T: Industrial Control System Breach.</div> <div>Legacy Risk #: 1753 & InfoM-0011-T</div>	<div>If the Industrial Control System (ICS) is breached due to an external attack or through a user's inadvertent or intentional download of malicious software, then significant and potentially catastrophic (depending on the criticality of the ICS, such TFLAN) system failure or damage may occur, including (1) loss of availability of the ICS / loss of production processes; (2) data leakage / loss of sensitive information; (3) physical damage to facilities or critical infrastructure; (4) interference with safety systems; (5) deterioration of ICS process controls; and (6) loss of life.</div> <div>Risk Handling Strategy: Mitigate</div> <div>Probability: Likely (75%)</div> <div>Worst Case Impacts: \$2.0M, 0 Days</div>	<div></div> <div></div>	<div></div> <div></div>	<div>Risk Trigger: During day to day operations, an intrusion to the ICS network is experienced.</div> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Conduct needs assessments for critical ICS.</td><td>Complete</td><td>100</td></tr><tr><td>Conduct needs assessments for critical ICS.</td><td>Complete</td><td>100</td></tr><tr><td>Secure access to wired and wireless networks within the ICS environment.</td><td>CY2021</td><td>30</td></tr><tr><td>Implement ICS security procedures and governance.</td><td>CY2021</td><td>15</td></tr><tr><td>Perform STE on first candidate system.</td><td>11/2021</td><td>25</td></tr><tr><td>Implement comprehensive ICS change management.</td><td>06/2022</td><td>10</td></tr><tr><td>Disable use of portable media where possible.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Implement procedures for approval of all portable devices prior to connection to the ICS network and components.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Disallow Internet and remote accesses to the ICS environment.</td><td>Ongoing</td><td>NA</td></tr></table> <div>Mitigation Action Assessment:</div> <div>No major changes in the month of April.</div> <div>In efforts to prevent a breach of the Industrial Control System (ICS), the project has implemented ongoing mitigation actions. These actions are being executed in conjunction with a heightened overall awareness of cyber security practices.</div> <div>In April, for the ICS mitigation action, DOE-RL is requesting a risk assessment to be developed for acceptance of the risk.</div>	Mitigation Action(s)	FC Date	%	Conduct needs assessments for critical ICS.	Complete	100	Conduct needs assessments for critical ICS.	Complete	100	Secure access to wired and wireless networks within the ICS environment.	CY2021	30	Implement ICS security procedures and governance.	CY2021	15	Perform STE on first candidate system.	11/2021	25	Implement comprehensive ICS change management.	06/2022	10	Disable use of portable media where possible.	Ongoing	NA	Implement procedures for approval of all portable devices prior to connection to the ICS network and components.	Ongoing	NA	Disallow Internet and remote accesses to the ICS environment.	Ongoing	NA
Mitigation Action(s)	FC Date	%																																
Conduct needs assessments for critical ICS.	Complete	100																																
Conduct needs assessments for critical ICS.	Complete	100																																
Secure access to wired and wireless networks within the ICS environment.	CY2021	30																																
Implement ICS security procedures and governance.	CY2021	15																																
Perform STE on first candidate system.	11/2021	25																																
Implement comprehensive ICS change management.	06/2022	10																																
Disable use of portable media where possible.	Ongoing	NA																																
Implement procedures for approval of all portable devices prior to connection to the ICS network and components.	Ongoing	NA																																
Disallow Internet and remote accesses to the ICS environment.	Ongoing	NA																																
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																																		
<div>IMS-0001-T: Malicious Software Network Breach</div> <div>Legacy Risk #: 1118 & InfoM-0001-T</div>	<div>If the network is breached through a user inadvertently or intentionally downloading malicious software, then a significant outage or information compromise may occur.</div> <div>Risk Handling Strategy: Mitigate</div> <div>Probability: Unlikely (25%)</div> <div>Worst Case Impacts: \$2.0M, 0 Days</div>	<div></div> <div></div>	<div></div> <div></div>	<div>Risk Trigger: During day to day operations, an intrusion resulting in malicious software downloading to the network is experienced resulting in cost impacts.</div> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Replaced Palo Alto Traps with Palo Alto Cortex XDR.</td><td>Complete</td><td>100</td></tr><tr><td>Implement user behavior based anomaly detection. (Palo Alto Cortex XDR)</td><td>Complete</td><td>100</td></tr><tr><td>Project H-001, BMS Upgrade Project</td><td>FY2024</td><td>5</td></tr><tr><td>Implement application whitelisting, allowing execution of only approved applications.</td><td>DOE Approval Needed</td><td>0</td></tr><tr><td>Improve internal controls, auditing, monitoring, and alerting capabilities.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Provide additional security training for users.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Restrict use of removable storage devices.</td><td>Ongoing</td><td>NA</td></tr></table> <div>Mitigation Action Assessment:</div> <div>No major changes in the month of April.</div> <div>Existing administrative processes are employed to manage system changes. In house training and lessons learned are provided to improve secure coding practice. Contracts, MOUs and ISAs are maintained. Project H-001, BMS Upgrade Project, partially mitigates this risk by reducing the number of systems potentially breached.</div>	Mitigation Action(s)	FC Date	%	Replaced Palo Alto Traps with Palo Alto Cortex XDR.	Complete	100	Implement user behavior based anomaly detection. (Palo Alto Cortex XDR)	Complete	100	Project H-001, BMS Upgrade Project	FY2024	5	Implement application whitelisting, allowing execution of only approved applications.	DOE Approval Needed	0	Improve internal controls, auditing, monitoring, and alerting capabilities.	Ongoing	NA	Provide additional security training for users.	Ongoing	NA	Restrict use of removable storage devices.	Ongoing	NA						
Mitigation Action(s)	FC Date	%																																
Replaced Palo Alto Traps with Palo Alto Cortex XDR.	Complete	100																																
Implement user behavior based anomaly detection. (Palo Alto Cortex XDR)	Complete	100																																
Project H-001, BMS Upgrade Project	FY2024	5																																
Implement application whitelisting, allowing execution of only approved applications.	DOE Approval Needed	0																																
Improve internal controls, auditing, monitoring, and alerting capabilities.	Ongoing	NA																																
Provide additional security training for users.	Ongoing	NA																																
Restrict use of removable storage devices.	Ongoing	NA																																

SECTION A

<div>IMS-0002-T: Application Software Vulnerability Network Breach</div> <div>Legacy Risk #: 1121 & InfoM-0002-T</div>	<div>If the network is breached due to the exploitation of vulnerabilities in installed application software, then a significant outage or information compromise may occur.</div> <div>Risk Handling Strategy: Mitigate</div> <div>Probability: Unlikely (25%)</div> <div>Worst Case Impacts: \$2.0M, 0 Days</div>	<div></div> <div></div>	<div></div> <div></div>	<div>Risk Trigger: During day to day operations, an intrusion due to network vulnerabilities is experienced resulting in cost impacts.</div> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Increase staff by 2 FTEs for incident response and analysis.</td><td>Complete</td><td>100</td></tr><tr><td>Integrate network operations center with engineering and cyber security to form security operations center.</td><td>Complete</td><td>100</td></tr><tr><td>Improve internal controls, auditing, monitoring, and alerting capabilities.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Incident detection and log correlation tools have been improved, activity ongoing.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Review incident handling guidelines and implement appropriate recommendations.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Develop incident scenarios and perform exercises regularly.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Provide additional training on security tools to existing staff, ongoing.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Improved incident response and analysis capability, increase staff by 2 FTEs.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Use outside resources to expedite improvements.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Perform vulnerability management scanning and mitigation.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Implement XSOAR Automation Software</td><td>04/2021</td><td>98%</td></tr></table> <div>Mitigation Action Assessment:</div> <div>No major changes in the month of April.</div> <div>Existing administrative processes are employed to manage system changes. In house training and lessons learned are provided to improve secure coding practice. Contracts, MOUs and ISAs are maintained.</div> <div>In April, XSOAR is waiting on final SQA paperwork and approvals to be put into production. An expedited request was made for mid-May for final SQA paperwork. Once SQA approval is received final procurement can take place and implementation can occur. Forecasted deployment date is set for early April to obtain approvals needed.</div>	Mitigation Action(s)	FC Date	%	Increase staff by 2 FTEs for incident response and analysis.	Complete	100	Integrate network operations center with engineering and cyber security to form security operations center.	Complete	100	Improve internal controls, auditing, monitoring, and alerting capabilities.	Ongoing	NA	Incident detection and log correlation tools have been improved, activity ongoing.	Ongoing	NA	Review incident handling guidelines and implement appropriate recommendations.	Ongoing	NA	Develop incident scenarios and perform exercises regularly.	Ongoing	NA	Provide additional training on security tools to existing staff, ongoing.	Ongoing	NA	Improved incident response and analysis capability, increase staff by 2 FTEs.	Ongoing	NA	Use outside resources to expedite improvements.	Ongoing	NA	Perform vulnerability management scanning and mitigation.	Ongoing	NA	Implement XSOAR Automation Software	04/2021	98%
Mitigation Action(s)	FC Date	%																																						
Increase staff by 2 FTEs for incident response and analysis.	Complete	100																																						
Integrate network operations center with engineering and cyber security to form security operations center.	Complete	100																																						
Improve internal controls, auditing, monitoring, and alerting capabilities.	Ongoing	NA																																						
Incident detection and log correlation tools have been improved, activity ongoing.	Ongoing	NA																																						
Review incident handling guidelines and implement appropriate recommendations.	Ongoing	NA																																						
Develop incident scenarios and perform exercises regularly.	Ongoing	NA																																						
Provide additional training on security tools to existing staff, ongoing.	Ongoing	NA																																						
Improved incident response and analysis capability, increase staff by 2 FTEs.	Ongoing	NA																																						
Use outside resources to expedite improvements.	Ongoing	NA																																						
Perform vulnerability management scanning and mitigation.	Ongoing	NA																																						
Implement XSOAR Automation Software	04/2021	98%																																						
<div>IMS-0005-T: Unintended PII in Software Applications.</div> <div>Legacy Risk #: 1442 & InfoM-0005-T</div>	<div>If unintended access to Personally Identifiable Information (PII) is discovered in software applications or files, because information was not originally marked as PII, then corrections must be implemented, resulting in cost impacts.</div> <div>Risk Handling Strategy: Mitigate</div> <div>Probability: Very Likely (95%)</div> <div>Worst Case Impacts: \$150.0K, 0 Days</div>	<div></div> <div></div>	<div></div> <div></div>	<div>Risk Trigger: During day to day operations, PII is discoverable on software or files to those without permission.</div> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Procure tool and perform searches to proactively detect PII in systems and files. [ROM cost/duration - \$50K/3-6 months] and implement corrections as appropriate at an estimated \$25K per instance. (O365 G5 licenses with DLP will scan anything stored with OneDrive or Outlook.)</td><td>Complete</td><td>100</td></tr><tr><td>Finalize DLP alerts and response procedures.</td><td>10/2021</td><td>18</td></tr><tr><td>Provide additional training to employees for proper handling of PII. OOU training development between Cyber Security and Safeguards and Security.</td><td>Ongoing</td><td>NA</td></tr><tr><td>When unintended access to PII is found, evaluate and implement best method of correction.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Compliance office will have two search analysts searching the front end of Integrated Document Management System (IDMS) for unidentified PII. Institute a vault process for controlling PII and other OOU.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Develop operational controls and alerts for file control access.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Encrypt data at rest. Would require alternatives/business case analysis to determine license fees, communications, switches for throughput, bandwidth and infrastructure requirements, etc. [Cost/duration - \$TBD/24 months] Not a NIST requirement.</td><td>TBD</td><td>0</td></tr></table> <div>Mitigation Action Assessment:</div> <div>No major changes in the month of April.</div> <div>Perform mitigation in accordance with DOE Privacy Program – CRD O 206.1.</div> <div>In April, DLP alerts and response procedures progressed from 10% to 18%.</div>	Mitigation Action(s)	FC Date	%	Procure tool and perform searches to proactively detect PII in systems and files. [ROM cost/duration - \$50K/3-6 months] and implement corrections as appropriate at an estimated \$25K per instance. (O365 G5 licenses with DLP will scan anything stored with OneDrive or Outlook.)	Complete	100	Finalize DLP alerts and response procedures.	10/2021	18	Provide additional training to employees for proper handling of PII. OOU training development between Cyber Security and Safeguards and Security.	Ongoing	NA	When unintended access to PII is found, evaluate and implement best method of correction.	Ongoing	NA	Compliance office will have two search analysts searching the front end of Integrated Document Management System (IDMS) for unidentified PII. Institute a vault process for controlling PII and other OOU.	Ongoing	NA	Develop operational controls and alerts for file control access.	Ongoing	NA	Encrypt data at rest. Would require alternatives/business case analysis to determine license fees, communications, switches for throughput, bandwidth and infrastructure requirements, etc. [Cost/duration - \$TBD/24 months] Not a NIST requirement.	TBD	0												
Mitigation Action(s)	FC Date	%																																						
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SECTION A

<p>ITCS-0007-T: Insufficient Fiber Cable Inventory</p> <p>Legacy Risk #: 1981 & InfoM-0017-T & IMS-0017-T</p>	<p>If on-hand fiber optic cable inventory remains insufficient to maintain, enhance, or expand existing network infrastructure, then MSA could find itself unable to recover from infrastructure damage or provide desired network redundancy resulting in impacts to sitewide operations and future reliability projects.</p> <p>Risk Handling Strategy: Mitigate</p> <p>Probability: Very Likely (95%) Worst Case Impacts: \$4.0M, 0 Days</p>			<p>Risk Trigger: Due to additional network demand, and the lack of readily available cable inventory the project experiences a cost impact.</p> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Perform study to determine feasibility of alternative and/or complimentary risk handling activities. Potential RHPs include, but are not limited to: Wavelength-division multiplexing, Wireless-based support strategy (temp. Wi-flex in areas to supply basic services), Consolidating/reducing legacy systems to reduce strain on current fiber optic capacity, Redistribute/optimize current equipment, Connect fiber from A8 substation to Midway substation (provides redundancy from site to Richland)</td><td>Complete</td><td>100</td></tr><tr><td>Out-year project L-819 (FY23 – estimated \$5M) exists to address additional connectivity from the Central Plateau area to the Federal Building.</td><td>FY2023</td><td>0</td></tr></table> <p>Mitigation Action Assessment: No major changes in the month of April.</p> <p>Out-year project L-819 is currently planned in efforts to address additional connectivity from the Central Plateau area to the Federal Building in Richland. If any of these proposed actions are proven to be feasible, the formal risk handling plan will be updated to align.</p> <p>The study to determine the feasibility of alternative and/or complimentary risk handling actions was completed. The study concluded that a graded approach with three different optimization techniques to increase the availability of fiber at Hanford. The optimizations and approach include implementing bi-directional (Bi-Di) connections; optimizing the current fiber use through Coarse Wavelength Division Multiplexing (CWDM) and Dense Wavelength Division Multiplexing (DWDM); and installing new fiber and re-routing old fiber to free up existing fiber.</p>	Mitigation Action(s)	FC Date	%	Perform study to determine feasibility of alternative and/or complimentary risk handling activities. Potential RHPs include, but are not limited to: Wavelength-division multiplexing, Wireless-based support strategy (temp. Wi-flex in areas to supply basic services), Consolidating/reducing legacy systems to reduce strain on current fiber optic capacity, Redistribute/optimize current equipment, Connect fiber from A8 substation to Midway substation (provides redundancy from site to Richland)	Complete	100	Out-year project L-819 (FY23 – estimated \$5M) exists to address additional connectivity from the Central Plateau area to the Federal Building.	FY2023	0			
Mitigation Action(s)	FC Date	%														
Perform study to determine feasibility of alternative and/or complimentary risk handling activities. Potential RHPs include, but are not limited to: Wavelength-division multiplexing, Wireless-based support strategy (temp. Wi-flex in areas to supply basic services), Consolidating/reducing legacy systems to reduce strain on current fiber optic capacity, Redistribute/optimize current equipment, Connect fiber from A8 substation to Midway substation (provides redundancy from site to Richland)	Complete	100														
Out-year project L-819 (FY23 – estimated \$5M) exists to address additional connectivity from the Central Plateau area to the Federal Building.	FY2023	0														
<p>ITCSS-0003-T: Emergency siren activation failure.</p> <p>Legacy Risk #: 1684 & InfoM-0009-T & IMS-0009-T</p>	<p>If the signal to Emergency Siren(s) were intercepted, due to the signal being unencrypted or if Emergency Siren(s) activation failed, then false alarms could be sounded resulting in miscommunication or a legitimate emergency response could potentially be delayed. Either scenario would reduce Hanford personnel confidence in the emergency notification system and cause a Stop Work.</p> <p>Risk Handling Strategy: Avoid</p> <p>Probability: Unlikely (10%) Worst Case Impacts: \$0.0, 0 Days</p>			<p>Risk Trigger: Emergency Sirens fail during a test or emergency situation.</p> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Procure and deploy new activation software (CentrAlert).</td><td>FY23</td><td>15</td></tr><tr><td>Revise procedures as necessary.</td><td>FY2023</td><td>0</td></tr></table> <p>Mitigation Action Assessment: No major changes in the month of April.</p> <p>Hanford Site Emergency Alerting System (HSEAS) is being implemented in multiple phases. The encryption of the signal is forecasted for implementation in FY23.</p>	Mitigation Action(s)	FC Date	%	Procure and deploy new activation software (CentrAlert).	FY23	15	Revise procedures as necessary.	FY2023	0			
Mitigation Action(s)	FC Date	%														
Procure and deploy new activation software (CentrAlert).	FY23	15														
Revise procedures as necessary.	FY2023	0														
<p>ITCS-0008-T: IM cannot perform Alternative Analysis of Gable Mountain.</p> <p>Legacy Risk #: 2072 & InfoM-0018-T & IMS-0018-T</p>	<p>If Information Management is unable to perform an alternatives analysis for Gable Mountain communications equipment removal because of HMIS's current funding priorities, then HMIS will be unable to holistically scope what would be required to vacate the area resulting in delays or inability to leverage future HMIS projects (reliability or other) in support of the Department of Energy's footprint reduction obligation on Gable Mountain.</p> <p>Risk Handling Strategy: Avoid</p> <p>Probability: Likely (90%) Worst Case Impacts: \$0.0, 0 Days</p>			<p>Risk Trigger: No alternatives to Gable Mountain are acquired or found.</p> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Consolidate equipment and facilities as able, including retiring/moving 623, 630 and 623b HSEAS, WiMax and two-way radio systems. (L-917)</td><td>FY2024</td><td>0</td></tr><tr><td>Relocate commercial radio services and DOE systems to alternate locations as possible. (L-917)</td><td>FY2024</td><td>0</td></tr><tr><td>Perform alternatives analysis & conceptual design for complete, long-term withdrawal from Gable Mountain. (L-917)</td><td>FY2024</td><td>0</td></tr></table> <p>Mitigation Action Assessment: No major changes in the month of April.</p> <p>The completion of Project L-917 would avoid this risk. The project is currently in the planning phase and has not been funded.</p>	Mitigation Action(s)	FC Date	%	Consolidate equipment and facilities as able, including retiring/moving 623, 630 and 623b HSEAS, WiMax and two-way radio systems. (L-917)	FY2024	0	Relocate commercial radio services and DOE systems to alternate locations as possible. (L-917)	FY2024	0	Perform alternatives analysis & conceptual design for complete, long-term withdrawal from Gable Mountain. (L-917)	FY2024	0
Mitigation Action(s)	FC Date	%														
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Relocate commercial radio services and DOE systems to alternate locations as possible. (L-917)	FY2024	0														
Perform alternatives analysis & conceptual design for complete, long-term withdrawal from Gable Mountain. (L-917)	FY2024	0														

<p>IMS-0022-T: Control of Personally Identifiable Information (PII) is lost.</p> <p>Legacy Risk #: 1443 & InfoM-0022-T</p>	<p>If control of Personally Identifiable Information (PII) is lost, due to intentional exploitation of vulnerabilities in existing software applications or legacy files by Site personnel, then corrections must be implemented and notifications sent, resulting in additional costs and damage to HMIS's relationships with the OHCs and DOE.</p> <p>Risk Handling Strategy: Mitigate</p> <p>Probability: Unlikely (20%) Worst Case Impacts: \$27.5M, 0 Days</p>	<div><div></div><div></div></div>	<p>Risk Trigger: Access to PII is discoverable through the exploitation of vulnerabilities in existing software applications or legacy files to those without permission.</p> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Procure tool and perform searches to proactively detect PII in systems and files. [ROM cost/duration - \$50K/3-6 months] and implement corrections as appropriate at an estimated \$25K per instance. (O365 G5 licenses with DLP will scan anything stored with OneDrive or Outlook.)</td><td>Complete</td><td>100</td></tr><tr><td>Provide additional training to employees for proper handling of PII. OOU training is being developed between Cyber Security and Safeguards and Security.</td><td>Ongoing</td><td>NA</td></tr><tr><td>When unintended access to PII is found, evaluate and implement best method of correction.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Compliance office will have two search analysts searching the front end of Integrated Document Management System (IDMS) for unidentified PII. Institute a vault process for controlling PII and other OOU.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Encrypt data at risk rest. Would require alternatives/business case analysis to determine license fees, communications, switches for throughput, bandwidth and infrastructure requirements, etc. [Cost/duration - \$TBD/24 months] Not a NIST requirement.</td><td>TBD</td><td>0</td></tr></table> <p>Mitigation Action Assessment: No major changes in the month of April. Data at rest encryption is a dormant action because there is no requirement at present. Operational controls and alerts for file control access are an ongoing development.</p>	Mitigation Action(s)	FC Date	%	Procure tool and perform searches to proactively detect PII in systems and files. [ROM cost/duration - \$50K/3-6 months] and implement corrections as appropriate at an estimated \$25K per instance. (O365 G5 licenses with DLP will scan anything stored with OneDrive or Outlook.)	Complete	100	Provide additional training to employees for proper handling of PII. OOU training is being developed between Cyber Security and Safeguards and Security.	Ongoing	NA	When unintended access to PII is found, evaluate and implement best method of correction.	Ongoing	NA	Compliance office will have two search analysts searching the front end of Integrated Document Management System (IDMS) for unidentified PII. Institute a vault process for controlling PII and other OOU.	Ongoing	NA	Encrypt data at risk rest. Would require alternatives/business case analysis to determine license fees, communications, switches for throughput, bandwidth and infrastructure requirements, etc. [Cost/duration - \$TBD/24 months] Not a NIST requirement.	TBD	0
Mitigation Action(s)	FC Date	%																			
Procure tool and perform searches to proactively detect PII in systems and files. [ROM cost/duration - \$50K/3-6 months] and implement corrections as appropriate at an estimated \$25K per instance. (O365 G5 licenses with DLP will scan anything stored with OneDrive or Outlook.)	Complete	100																			
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Encrypt data at risk rest. Would require alternatives/business case analysis to determine license fees, communications, switches for throughput, bandwidth and infrastructure requirements, etc. [Cost/duration - \$TBD/24 months] Not a NIST requirement.	TBD	0																			

3.6 HMIS ET&P Mission Key Risks

- **BCRs:** No BCRs were processed in April that impact the project's MR or SM profile.
- **Risk Analysis:** No risk analysis conducted in April.
- **Current Risk Posture:**

Table A-17. ET&P Risk Posture

Period	Realized	Key	Opened	Closed	Unassigned	Total Risks
February	0	0	0	0	2	2
March	0	0	0	0	2	2

Table A-18. ET&P Key Risks

	Unmitigated Risk Impacts	Assessment		Comments
		Month	Trend	
ET&PM- Mission Risks				
Explanation of major changes to the program monthly spotlight chart: No major changes to the Spotlight Charts in April.				
Realized Risks (Risks that are currently impacting project cost/schedule)				
No Realized Risks in April.				
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)				
No Critical Risks in April.				
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)				
No High Risks in April.				
Unassigned Risks (Pending ownership of identified risks/opportunities)				

SECTION A

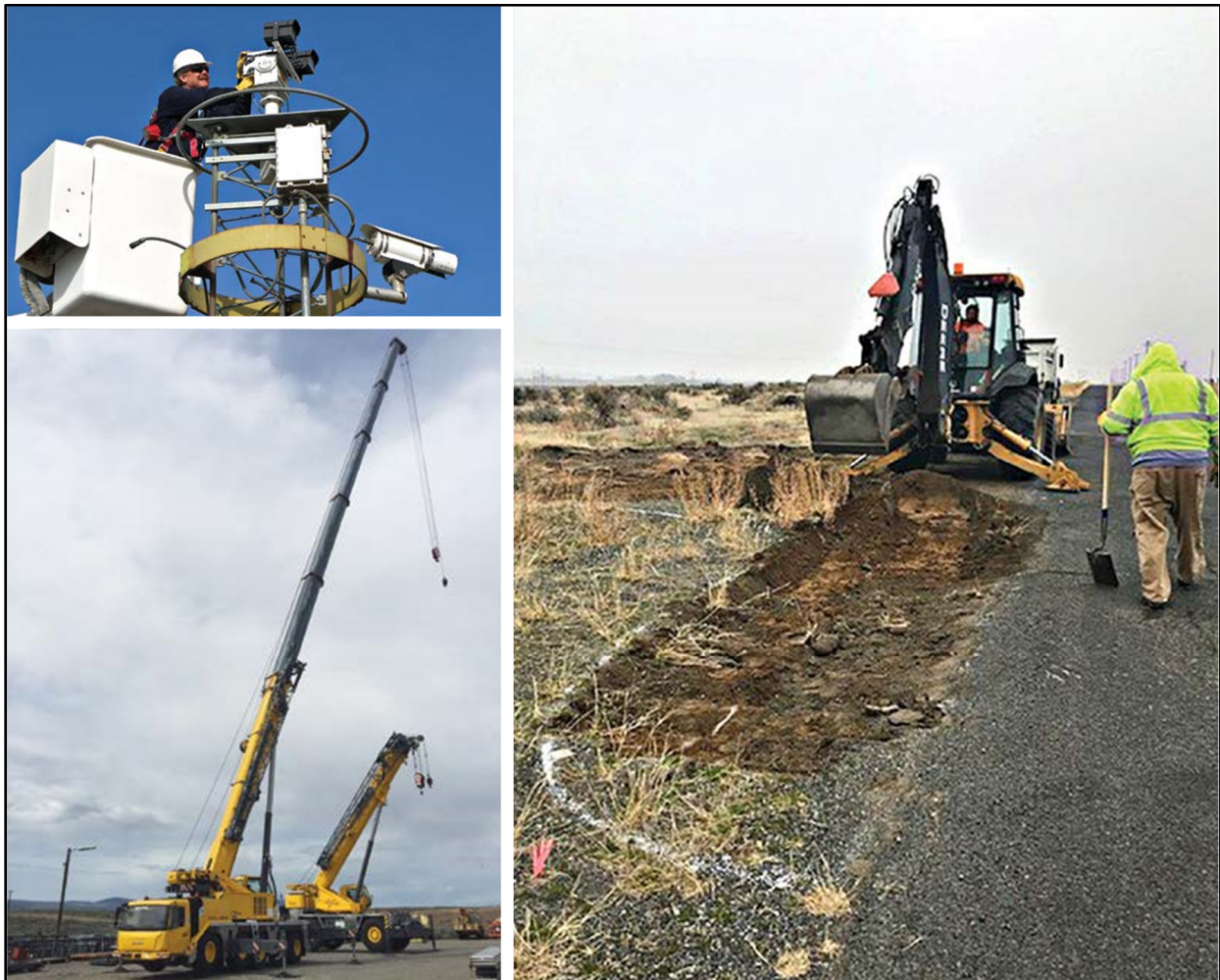
	Unmitigated Risk Impacts	Assessment		Comments
		Month	Trend	
ET&PM- Mission Risks				
ETP-0009-T: NEPA screen determines reliability project must have an EA. Legacy Risk #: 1949 & SSIM-0009-T	If a reliability project or projects require an Environment Assessment (EA) because the National Environmental Policy Act (NEPA) screen determines a Categorical Exclusion (CX) does not apply, then additional labor and financial resources will be required for HMIS and DOE oversight of the project(s) impacting project schedule and cost.			
ETP-0010-T: NEPA screen determines a reliability project requires an EIS. Legacy Risk #: 1950 & SSIM-0010-T	If a reliability project or projects require an Environmental Impact Statement (EIS) because the National Environmental Policy Act (NEPA) screen determines a Categorical Exclusion (CX) does not apply, then additional labor and financial resources will be required for HMIS and DOE oversight of the project(s) impacting project schedule and cost.			

4.0 DOE ACTIONS/DECISIONS

Table A-19. DOE Actions/Decisions

Description	HMIS Delivery Date	Expected DOE-RL Due Date
N/A		

Section B



**Monthly Project Performance Report
(CD0162)**

1.0 RELIABILITY PROJECTS EXECUTIVE SUMMARY

Covered above IN 1.0 EXECUTIVE SUMMARY.

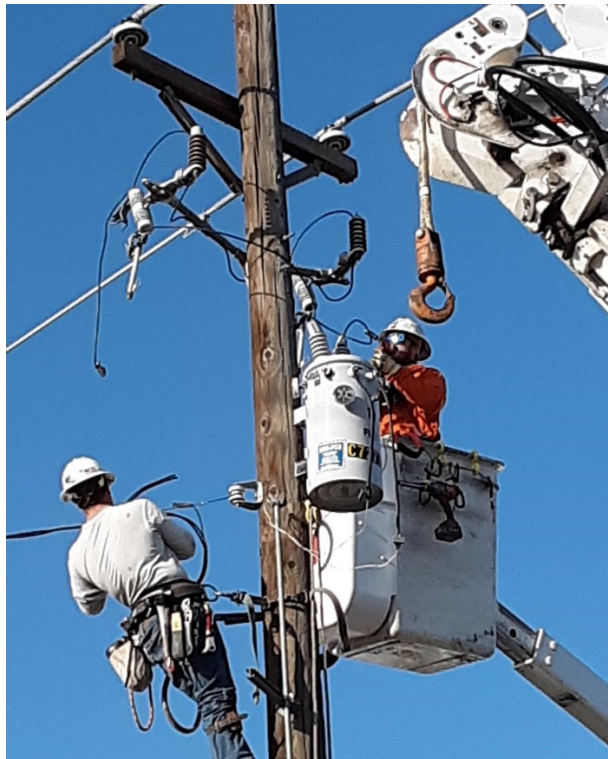
2.0 SAFETY PERFORMANCE

Nothing to report in the month of April.

3.0 KEY ACCOMPLISHMENTS

Significant accomplishments and progress towards completion of goals and objectives, for the month of April, included:

- L-781, 181D Vertical Turbine Pumps: Completed approval of A/E 30% Design comment dispositions and initiated 60% Design development.
- L-850, 200W Potable Water Tank Replacement: Initiated release of revised DCN-002 documents, resolved RCI-017-NSF 61 Tank Dome Material, and vendor initiated revision to tank design package.
- L-895, Fire Protection Infrastructure for PRW: Installed vent valves on all 200W pumps and completed installation of all 200W E-Stops and associated wiring.
- Continued to support Ecology reviewing combined NOC application for water upgrade projects.
- L-897, Central Plateau Water Treatment Facility: Continued proposal evaluation and terms & conditions negotiations for membrane filters and treatment system procurement, and held pre-construction site-walk with the construction subcontractor for mobilization and laydown area planning.
- L-934, MSC Office Space Gap Reduction - 200E: Completed abandonment of injection well, moved trailers from staging area and set on site, initiated installation of trailers pier pads, foundations, and anchors. Excavated sewer line trench, installed associated piping, and manholes and backfilled, ready for testing.
- L-789, Priority T&D System Wood PP Test & Replace: Completed installation of all wood poles, guy cables and overhead conductors. All corridor work scope except installation of fiber optic cable and demolition of existing poles has been completed. Initiated cutover outages that started in Dayton Avenue.
- L-801, Upgrade SCADA: Next stage of installation of the RTU complete on A6 substation SCADA. CAT/OAT was also completed and troubleshooting of the old technology Map Board and interface with the new SCADA system at the A8 substation ahead of the next RTU installation in July after the CGS outage.
- L-905, FARS & RFARS Replacement & Upgrade: Final power cutover, CAT, ROC, ATP, DEMO for 506BA, 2751E, MO413 completed.
- L-921, Telecom Hut at Met Tower: Design for the grounding system for the tower and hut is complete and contractor mobilized to site and commencing initial site preparation activities.



L-789 Titan Crew Performing Cutovers (4/7/21)



L-934 Six Wide and Four Wide Trailer Install (4/7/21)

4.0 EARNED VALUE MANAGEMENT

Table B-1. Reliability Project Performance

CUM/PBS/WBS for April	CURRENT PERIOD					FISCAL YEAR TO DATE					CUMULATIVE TO DATE					AT COMPLETION		
	BUDGETED COST	ACTUAL COST	VARIANCE	BUDGETED COST	ACTUAL COST	VARIANCE	BUDGETED COST	ACTUAL COST	VARIANCE	BUDGETED COST	ACTUAL COST	VARIANCE	BUDGETED COST	ACTUAL COST	VARIANCE	BAC	EAC	VARIANCE
	BCWS	BCWP	ACWP	SCHEDULE	COST		BCWS	BCWP	ACWP	SCHEDULE	COST		BCWS	BCWP	ACWP	SCHEDULE	COST	
RL-0020 - Safeguards and Security																		
4001.07.06.01.01 - L-921, Telecom Hut at Met Tower	\$73	\$188	\$158	\$115	\$29	\$420	\$354	\$335	(\$65)	\$19	\$420	\$354	\$335	(\$65)	\$19	\$434	\$423	\$11
4001.07.06.01.02 - L-919, Emergency Radio Upgrade	\$44	\$2	(\$14)	(\$42)	\$16	\$64	\$13	\$90	(\$51)	(\$77)	\$64	\$13	\$90	(\$51)	(\$77)	\$1,417	\$1,966	(\$549)
Total RL-0020 - Safeguards and Security	\$117	\$190	\$145	\$73	\$45	\$484	\$368	\$425	(\$116)	(\$57)	\$484	\$368	\$425	(\$116)	(\$57)	\$1,851	\$2,389	(\$537)
RL-0201 - Hanford Site-Wide Services																		
4001.07.01.01.01 - L-839, 12in Potable Water Loop-line	\$26	\$47	\$61	\$21	(\$14)	\$36	\$69	\$109	\$33	(\$41)	\$36	\$69	\$109	\$33	(\$41)	\$1,791	\$1,824	(\$33)
4001.07.01.01.02 - L-850, Replace 200W 1.1M-gal PW Tank	\$152	\$102	\$106	(\$50)	(\$4)	\$578	\$599	\$685	\$21	(\$86)	\$578	\$599	\$685	\$21	(\$86)	\$5,108	\$5,427	(\$319)
4001.07.01.01.03 - L-897, Central Plateau Water Treatment Facility	\$1,274	\$148	\$203	(\$1,126)	(\$56)	\$1,754	\$1,149	\$1,144	(\$605)	\$5	\$1,754	\$1,149	\$1,144	(\$605)	\$5	\$9,304	\$9,960	(\$656)
4001.07.01.01.04 - L-781, 181D Vertical Turbine Pumps	\$23	\$551	\$486	\$528	\$64	\$628	\$598	\$561	(\$30)	\$37	\$628	\$598	\$561	(\$30)	\$37	\$754	\$775	(\$21)
4001.07.01.01.05 - L-826, 181B Vertical Turbine Pumps	\$53	\$43	\$17	(\$11)	\$26	\$108	\$92	\$28	(\$16)	\$64	\$108	\$92	\$28	(\$16)	\$64	\$417	\$357	\$60
4001.07.01.01.06 - L-849, Replace 200E 1.1M-gal PW Tank	\$217	\$137	\$117	(\$80)	\$20	\$254	\$174	\$143	(\$80)	\$31	\$254	\$174	\$143	(\$80)	\$31	\$612	\$525	\$86
4001.07.01.01.07 - L-894, Raw Water Cross Connect Isolation 200E/W	\$14	\$7	\$20	(\$7)	(\$13)	\$35	\$21	\$31	(\$14)	(\$10)	\$35	\$21	\$31	(\$14)	(\$10)	\$149	\$212	(\$64)
4001.07.01.01.08 - L-895, Fire Protection Infrastructure for PRW	\$320	\$133	\$260	(\$187)	(\$128)	\$850	\$518	\$690	(\$332)	(\$172)	\$850	\$518	\$690	(\$332)	(\$172)	\$2,685	\$2,662	\$23
4001.07.01.01.09 - L-838, Water Feeds to 622R, 6608 & 200W Lagoons	\$0	\$0	\$0	\$0	(\$0)	\$0	\$0	\$0	\$0	(\$0)	\$0	\$0	\$0	\$0	(\$0)	\$32	\$47	(\$15)
4001.07.02.01.01 - L-853, 200E Sewer Flow Equalization Facility	\$24	\$14	\$1	(\$10)	\$13	\$51	\$29	\$26	(\$21)	\$3	\$51	\$29	\$26	(\$21)	\$3	\$70	\$64	\$6
4001.07.02.01.02 - L-854, 200E Sewer Consolidations	\$17	\$7	\$5	(\$10)	\$3	\$34	\$19	\$9	(\$15)	\$10	\$34	\$19	\$9	(\$15)	\$10	\$63	\$31	\$32
4001.07.03.01.01 - L-801 Upgrade SCADA	\$286	\$301	\$270	\$15	\$31	\$455	\$385	\$348	(\$71)	\$36	\$455	\$385	\$348	(\$71)	\$36	\$1,675	\$1,649	\$26
4001.07.03.01.02 - L-791, RFL Transfer Trip Upgrades	\$0	\$0	(\$30)	\$0	\$30	\$0	\$0	\$10	\$0	(\$10)	\$0	\$0	\$10	\$0	(\$10)	\$0	\$10	(\$10)
4001.07.03.01.03 - L-707, Advanced Electrical Metering	\$15	\$6	\$7	(\$9)	(\$2)	\$42	\$30	\$19	(\$12)	\$11	\$42	\$30	\$19	(\$12)	\$11	\$1,175	\$1,167	\$7
4001.07.03.01.04 - L-905, FARS & RFARS Replacement & Upgrade	\$9	\$66	\$112	\$57	(\$46)	\$181	\$160	\$157	(\$21)	\$4	\$181	\$160	\$157	(\$21)	\$4	\$183	\$253	(\$70)
4001.07.03.01.05 - L-911, Route 4S Lighting in 300 Area	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50	\$50	\$0
4001.07.03.01.06 - L-898, 100 Area Mission Crit Dist Feeders Repl	\$88	\$86	\$58	(\$2)	\$28	\$170	\$148	\$143	(\$21)	\$5	\$170	\$148	\$143	(\$21)	\$5	\$527	\$527	\$0
4001.07.03.02.01 - L-612, 230KV Trans Sys Recon & Sustainability	\$38	\$35	\$19	(\$4)	\$16	\$61	\$57	\$41	(\$4)	\$16	\$61	\$57	\$41	(\$4)	\$16	\$123	\$106	\$17
4001.07.03.02.02 - L-861, Single-Circuit Distribution Pole Replace	\$48	\$41	\$84	(\$6)	(\$42)	\$194	\$184	\$174	(\$11)	\$10	\$194	\$184	\$174	(\$11)	\$10	\$486	\$531	(\$45)
4001.07.03.02.03 - L-789, Priority T&D Sys Wood PP Test & Replace	\$188	\$199	\$712	\$11	(\$513)	\$2,376	\$911	\$1,262	(\$1,465)	(\$351)	\$2,376	\$911	\$1,262	(\$1,465)	(\$351)	\$2,651	\$4,783	(\$2,132)
4001.07.03.02.04 - L-720, Outdoor Lighting Reconfiguration & Repl	\$246	\$247	\$243	\$1	\$4	\$477	\$335	\$295	(\$142)	\$40	\$477	\$335	\$295	(\$142)	\$40	\$2,255	\$1,595	\$660
4001.07.04.02.01 - L-534, Overlay Interior 200 East Roads	\$11	\$7	\$18	(\$3)	(\$10)	\$26	\$22	\$45	(\$4)	(\$23)	\$26	\$22	\$45	(\$4)	(\$23)	\$2,091	\$2,108	(\$16)
4001.07.04.02.02 - L-603, Chip Seal Route 3N (Route 11A to Route 3)	\$12	\$6	\$9	(\$5)	(\$3)	\$27	\$22	\$41	(\$6)	(\$20)	\$27	\$22	\$41	(\$6)	(\$20)	\$1,371	\$1,382	(\$11)
4001.07.04.02.03 - L-883, Chip Seal Rt 10, SR-240 to WYE Barricade	\$12	\$8	\$17	(\$4)	(\$9)	\$27	\$23	\$41	(\$4)	(\$18)	\$27	\$23	\$41	(\$4)	(\$18)	\$1,799	\$1,810	(\$11)
4001.07.05.01.01 - L-888, 400 Area Fire Station	(\$15)	\$3	\$34	\$19	(\$30)	\$16	\$14	\$53	(\$27)	(\$39)	\$16	\$14	\$53	(\$27)	(\$39)	\$39	\$80	(\$41)
4001.07.05.01.02 - L-907, Fleet Complex Site Development	\$143	\$170	\$151	\$27	\$18	\$430	\$419	\$272	(\$11)	\$147	\$430	\$419	\$272	(\$11)	\$147	\$1,835	\$1,849	(\$14)
4001.07.05.01.03 - L-934, MSC Office Space Gap Reduction - 200E	\$532	\$469	\$472	(\$63)	(\$4)	\$982	\$1,173	\$1,166	\$191	\$7	\$982	\$1,173	\$1,166	\$191	\$7	\$2,032	\$2,029	\$2
4001.07.05.01.04 - L-933, Install Mobile Office Trailers - 200E	\$1	\$3	\$4	\$3	(\$0)	\$17	\$13	\$37	(\$5)	(\$25)	\$17	\$13	\$37	(\$5)	(\$25)	\$17	\$42	(\$25)
4001.07.05.02.01 - L-796, Key Facilities Roof Replacements	\$92	\$87	\$109	(\$5)	(\$22)	\$106	\$93	\$129	(\$13)	(\$36)	\$106	\$93	\$129	(\$13)	(\$36)	\$1,578	\$1,594	(\$17)
4001.07.06.01.01 - L-921, Telecom Hut at Met Tower	\$48	\$125	\$106	\$77	\$19	\$278	\$235	\$224	(\$43)	\$12	\$278	\$235	\$224	(\$43)	\$12	\$288	\$282	\$6
4001.07.06.01.02 - L-919, Emergency Radio Upgrade	\$29	\$1	(\$1)	(\$28)	\$2	\$64	\$22	\$71	(\$42)	(\$50)	\$64	\$22	\$71	(\$42)	(\$50)	\$966	\$1,316	(\$350)
4001.07.06.01.05 - L-819, High Capacity Fiber Optic (300 Area)	\$46	\$39	\$4	(\$8)	\$34	\$97	\$39	\$5	(\$58)	\$34	\$97	\$39	\$5	(\$58)	\$34	\$166	\$98	\$69
4001.07.06.02.04 - L-937, Gable East Footprint Reduction (Phase 1)	\$860	\$162	\$161	(\$698)	\$1	\$1,352	\$306	\$214	(\$1,046)	\$92	\$1,352	\$306	\$214	(\$1,046)	\$92	\$2,076	\$2,053	\$24
4001.07.07.01.01.01 - IRP - Out-Year Summary Level Planning Package	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$341,394	\$338,574	\$2,820
Total RL-0201 - Hanford Site-Wide Services	\$4,804	\$3,248	\$3,833	(\$1,556)	(\$586)	\$11,702	\$7,855	\$8,171	(\$3,847)	(\$315)	\$11,702	\$7,855	\$8,171	(\$3,847)	(\$315)	\$385,759	\$385,770	(\$11)
Grand Total	\$4,921	\$3,437	\$3,978	(\$1,484)	(\$540)	\$12,186	\$8,223	\$8,595	(\$3,964)	(\$373)	\$12,186	\$8,223	\$8,595	(\$3,964)	(\$373)	\$387,610	\$388,159	(\$548)

Note: \$ in thousands

Cost Variance Analysis: The CM unfavorable CV of (\$540K) is primarily due to:

- L-789, Priority T&D Sys Wood PP Test & Replace construction contractor change orders. A baseline change request is underway to incorporate change order scope into the performance measurement baseline. (-\$513k)

Schedule Variance Analysis: The CM unfavorable SV of (\$1,483.7K) is primarily due to:

Schedule impacts to IRP – Water System projects (4001.07.01)

- L-897, Central Plateau Water Treatment Facility membrane procurement award being delayed. The first milestone payment was planned to occur in the current period. A BCR is in progress to re-plan this scope of work. (-\$1,126k)
- L-781, 181D Vertical Turbine Pumps schedule recovery in the current period for 30% design completion that was planned in a prior period (\$527k)
- L-895, Fire Protection Infrastructure for PRW A/E services subcontract delayed award which is impacting ongoing construction and procedure scope. The A/E services subcontract was not novated at transition from MSA to HMIS and a new procurement solicitation is underway. (-\$187k)

Schedule Impacts to IRP – Network & Telecom System (4001.07.06)

- L-921, Telecom Hut at Met Tower schedule recovery in the current period for telecom hut prep work and placement. Scope was planned in a prior period (\$77k)
- L-937, Gabe East Footprint Reduction (Phase 1) Engineering Change Request driving schedule impacts to RSC and Solar Array procurement and construction activities. ECR forecasted to complete in May. Windcube procurement receipt expected in late May. (-\$698k)

Variance at Completion: The unfavorable VAC of (\$549k) is primarily due to the following project drivers:

- L-919, Emergency Radio Upgrade vendor support subcontracts awarded at a value greater than originally planned. (-\$899K)
- L-897, Central Plateau Water Treatment Facility construction contractor change orders resulting from Notice of Construction application project impacts. (-\$656k)
- L-789, Priority T&D Sys Wood PP Test & Replace construction subcontractor change orders. A baseline change request in underway to incorporate change order scope into the performance measurement baseline. (-\$2,132k)
- L-720, Outdoor Lighting Reconfiguration & Replacement construction subcontract awarded for less than originally planned. (\$660k)

RISK MANAGEMENT

4.1 HMIS L-612 Project Key Risks

- **BCRs:** No BCRs were processed in **April** that impact the project's MR or SM profile.
- **Risk Analysis:** No risks analysis conducted in **April**.
- **Current Risk Posture:**

Table B-2. L-612 Risk Posture

Period	Realized	Key	Opened	Closed	Unassigned	Total Risks
March	0	0	0	0	0	15
April	0	0	0	0	0	15

Table B-3. L-612 Key Risks

	Unmitigated Risk Impacts	Assessment		Comments
		Month	Trend	
L612 –230Kv Transmission System Reconditioning and Sustainability Repairs - Project Risks				
Explanation of major changes to the program monthly spotlight chart: L-612 has been paused at the 90% design approval of the optimized design for alternative studies.				





4.2 HMIS L-789 Project Key Risks

- **BCRs:** No BCRs were processed in **April** that impact the project's MR or SM profile.
- **Risk Analysis:** No risks analysis conducted in **April**.
- **Current Risk Posture:**

Table B-4. L-789 Risk Posture

Period	Realized	Key	Opened	Closed	Unassigned	Total Risks
March	-	-	-	-	-	-
April	0	2	0	0	0	12

Table B-5. L-789 Key Risks

	Unmitigated Risk Impacts	Assessment		Comments															
		Month	Trend																
L789 - Priority T&D Sys Wood PP Test & Replace - Project Risks																			
Explanation of major changes to the program monthly spotlight chart: No major changes to the Spotlight Chart in April. Realized risk L-789-0014-T: Linemen Mutual Aid was an artifact of poor weather and is no longer being realized. Risk will continue to be monitored.																			
Realized Risks (Risks that are currently impacting project cost/schedule)																			
No Realized Risks in April.																			
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)																			
L789-0014-T: Linemen Mutual Aid. Legacy Risk #: NA	If sub-contractor linemen are called to support mutual aid agreements by utilities in the in the event of power outages due to severe weather, including wildfires, then project schedule and cost will be impacted. Risk Handling Strategy: Mitigate Probability: Somewhat Likely (50%) Worst Case Impacts: \$0, 96 days			<div>Risk Trigger: An incident requiring support of linemen through the mutual aid agreement.</div> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Construction contract to remain open until all transmission/distribution projects complete</td><td>Ongoing</td><td>NA</td></tr></table> <div>Mitigation Action Assessment: No major changes in the month of April.</div>	Mitigation Action(s)	FC Date	%	Construction contract to remain open until all transmission/distribution projects complete	Ongoing	NA									
Mitigation Action(s)	FC Date	%																	
Construction contract to remain open until all transmission/distribution projects complete	Ongoing	NA																	
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																			
L789-0006-T: EU resource constraints prevent new equipment electrical tie-ins. Legacy Risk #: 1962	If an EU outage is delayed because of operational constraints, then some scheduled work may need to be reprioritized impacting project schedule. Risk Handling Strategy: Accept Probability: Likely (75%) Worst Case Impacts: \$0, 32 days			<div>Risk Trigger: Operational delays resulting in delays.</div> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Identify engineering needs to lead engineer during at the IPT meeting.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Establish engineering review needs during conceptual design phase.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Coordinate engineering support availability into project schedule.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Communicate scheduling changes impacting engineering review to lead engineer.</td><td>Ongoing</td><td>NA</td></tr></table> <div>Mitigation Action Assessment: No major changes in the month of April.</div>	Mitigation Action(s)	FC Date	%	Identify engineering needs to lead engineer during at the IPT meeting.	Ongoing	NA	Establish engineering review needs during conceptual design phase.	Ongoing	NA	Coordinate engineering support availability into project schedule.	Ongoing	NA	Communicate scheduling changes impacting engineering review to lead engineer.	Ongoing	NA
Mitigation Action(s)	FC Date	%																	
Identify engineering needs to lead engineer during at the IPT meeting.	Ongoing	NA																	
Establish engineering review needs during conceptual design phase.	Ongoing	NA																	
Coordinate engineering support availability into project schedule.	Ongoing	NA																	
Communicate scheduling changes impacting engineering review to lead engineer.	Ongoing	NA																	
Unassigned Risks (Pending ownership of identified risks/opportunities)																			
No unassigned risks identified in April.																			





4.3 HMIS L-850 Project Key Risks

- **BCRs:** No BCRs were processed in **April** that impact the project's MR or SM profile.
- **Risk Analysis:** No risks analysis conducted in **April**.
- **Current Risk Posture:**

Table B-6. L-850 Risk Posture

Period	Realized	Key	Opened	Closed	Unassigned	Total Risks
March	0	2	0	0	1	24
April	0	6	0	1	3	23

Table B-7. L-850 Key Risks

Unmitigated Risk Impacts	Assessment		Comments												
	Month	Trend													
L850 - Replace 200W 1.1M-gal PW Tank - Project Risks															
Explanation of major changes to the program monthly spotlight chart: Risk L-850-0004-T, <i>Discovery of Unidentified, Underground Interference</i> , was opened and added as a high risk in preparation of construction activities starting in FY21. Risk L-850-0005-T, <i>Discovery of Hazardous Waste or Unknown Container</i> , was opened and added as a high risk in preparation of construction activities starting in FY21. Risk L-850-0013-T, <i>If Plutonium Finishing Plant (PFP) contamination spreads to the Project Site, then construction activities could be delayed, impacting project cost and schedule</i> , was added in the Unassigned Risk section. Risk L-850-0018-T, <i>Bid Comes in High</i> , was opened and added as a high risk in preparation of construction activities starting in FY21. Risk L-850-0020-T, <i>Attrition or Staffing Turnover</i> , was opened and added as a high risk. Risk L-850-0022-T, <i>Procurement Cycle Delay</i> , was closed because the contract was awarded. Risk L-850-0023-T, <i>Department of Ecology disagrees with HMIS submitting two separate NOC applications for separate and non-overlapping air pollutants</i> , was realized as a result of Ecology denying separate NOC applications and added in the Unassigned Risk section.															
Realized Risks (Risks that are currently impacting project cost/schedule)															
No realized risks in April.															
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)															
L850-0019-T: SWOC and MDSAS DOE Approval Legacy Risk #: 3208 & L850-0019-T	If a revision to the Solid Waste Operations Complex (SWOC) Master Documented Safety Analysis (MDSA) or approval of a new safety basis document is not approved by DOE by the end of the project then a project delay will occur impacting schedule. Risk Handling Strategy: Accept Probability: Somewhat Likely (50%) Worst Case Impacts: \$0, 192 days	 	Risk Trigger: MDSA or approval of a new safety basis document is not approved by DOE. <table border="1"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Risk is accepted with no mitigation actions planned at this time.</td><td>Ongoing</td><td>NA</td></tr></tbody></table> Mitigation Action Assessment: No major changes in the month of April.	Mitigation Action(s)	FC Date	%	Risk is accepted with no mitigation actions planned at this time.	Ongoing	NA						
Mitigation Action(s)	FC Date	%													
Risk is accepted with no mitigation actions planned at this time.	Ongoing	NA													
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)															
L850-0001-T: Design Errors or Omissions Resulting in Redesign and Rework Legacy Risk #: 3087 & L850-0001-T	If Design errors or omissions result in redesign and rework, then project cost and schedule will be impacted. Risk Handling Strategy: Accept Probability: Unlikely (18%) Worst Case Impacts: \$50.0K, 96 days	 	Risk Trigger: Design reviews reveal comments/issues were not incorporated into them causing rework and potential delays. <table border="1"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>Coordinate engineering support availability into project schedule.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Communicate scheduling changes impacting engineering review to lead engineer.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Create adequate review and comment periods in the schedule</td><td>Ongoing</td><td>NA</td></tr></tbody></table>	Mitigation Action(s)	FC Date	%	Coordinate engineering support availability into project schedule.	Ongoing	NA	Communicate scheduling changes impacting engineering review to lead engineer.	Ongoing	NA	Create adequate review and comment periods in the schedule	Ongoing	NA
Mitigation Action(s)	FC Date	%													
Coordinate engineering support availability into project schedule.	Ongoing	NA													
Communicate scheduling changes impacting engineering review to lead engineer.	Ongoing	NA													
Create adequate review and comment periods in the schedule	Ongoing	NA													

SECTION B

	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
L850 - Replace 200W 1.1M-gal PW Tank - Project Risks																
				<div>for reviewing the A/E's 30%, 60%, 90% & 100% products.</div> <div></div> <div></div> <div>Mitigation Action Assessment: No major changes in the month of April. In April, incorporation of HMIS review comments on Construction SOW Rev 1 per DCN-002 continued.</div>												
<div>L850-0004-T: Discovery of Unidentified, Underground Interference</div> <div>Legacy Risk #: 3090 & L850-0004-T</div>	<div>If underground interferences are discovered during construction or are missed during ground-scans, then project schedule and cost will be impacted.</div> <div>Risk Handling Strategy: Accept</div> <div>Probability: Somewhat Likely (50%) Worst Case Impacts: \$90.0K, 48 days</div>	<div></div>	<div></div>	<div>Risk Trigger: During potholing, trenching, or tie-in work underground interferences are discovered.</div> <div><table><tr><td>Mitigation Action(s)</td><td>FC Date</td><td>%</td></tr><tr><td>Utilize historical documents if available.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Perform scan of the route/footprint utilizing ground penetrating radar (GPR) to aid planning and estimates.</td><td>08/2021</td><td>NA</td></tr><tr><td>Utilize hand tools to trench/excavate/pothole in highly congested areas/corridors.</td><td>Ongoing</td><td>NA</td></tr></table></div> <div>Mitigation Action Assessment: No major changes in the month of April.</div>	Mitigation Action(s)	FC Date	%	Utilize historical documents if available.	Ongoing	NA	Perform scan of the route/footprint utilizing ground penetrating radar (GPR) to aid planning and estimates.	08/2021	NA	Utilize hand tools to trench/excavate/pothole in highly congested areas/corridors.	Ongoing	NA
Mitigation Action(s)	FC Date	%														
Utilize historical documents if available.	Ongoing	NA														
Perform scan of the route/footprint utilizing ground penetrating radar (GPR) to aid planning and estimates.	08/2021	NA														
Utilize hand tools to trench/excavate/pothole in highly congested areas/corridors.	Ongoing	NA														
<div>L850-0005-T: Discovery of Hazardous Waste or Unknown Container</div> <div>Legacy Risk #: 3091 & L850-0005-T</div>	<div>If hazardous waste or an unknown container is discovered then project schedule and cost will be impacted.</div> <div>Risk Handling Strategy: Accept</div> <div>Probability: Unlikely (10%) Worst Case Impacts: \$250.0K, 32 days</div>	<div></div>	<div></div>	<div>Risk Trigger: During construction, trenching, or tie-in work hazardous waste or unknown containers are discovered.</div> <div><table><tr><td>Mitigation Action(s)</td><td>FC Date</td><td>%</td></tr><tr><td>Check design route for known waste information data system (WIDS) sites on the Hanford MAPS Stewardship Information Portal (SIP)</td><td>Complete</td><td>100</td></tr><tr><td>Complete site evaluation & excavation permit as well as WIDS crossing checklist during design phase.</td><td>Complete</td><td>100</td></tr><tr><td>Have Radiological staff on hand to survey spill piles as construction occurs.</td><td>Ongoing</td><td>NA</td></tr></table></div> <div>Mitigation Action Assessment: No major changes in the month of April.</div>	Mitigation Action(s)	FC Date	%	Check design route for known waste information data system (WIDS) sites on the Hanford MAPS Stewardship Information Portal (SIP)	Complete	100	Complete site evaluation & excavation permit as well as WIDS crossing checklist during design phase.	Complete	100	Have Radiological staff on hand to survey spill piles as construction occurs.	Ongoing	NA
Mitigation Action(s)	FC Date	%														
Check design route for known waste information data system (WIDS) sites on the Hanford MAPS Stewardship Information Portal (SIP)	Complete	100														
Complete site evaluation & excavation permit as well as WIDS crossing checklist during design phase.	Complete	100														
Have Radiological staff on hand to survey spill piles as construction occurs.	Ongoing	NA														
<div>L850-0018-T: Bid Comes in High</div> <div>Legacy Risk #: 3104 & L850-0018-T</div>	<div>If the bid comes in higher than expected, there are no bidders or there is only a single bidder because the industry market is not well understood, then a rebid or a sole-source justification will be necessary impacting project schedule.</div> <div>Risk Handling Strategy: Accept</div> <div>Probability: Unlikely (25%) Worst Case Impacts: \$500.0K, 32 days</div>	<div></div>	<div></div>	<div>Risk Trigger: Bids are received higher than expected.</div> <div><table><tr><td>Mitigation Action(s)</td><td>FC Date</td><td>%</td></tr><tr><td>Contact procurement during planning to determine the bidding climate.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Perform cost-price reviews.</td><td>Ongoing</td><td>NA</td></tr></table></div> <div>Mitigation Action Assessment: No major changes in the month of April.</div>	Mitigation Action(s)	FC Date	%	Contact procurement during planning to determine the bidding climate.	Ongoing	NA	Perform cost-price reviews.	Ongoing	NA			
Mitigation Action(s)	FC Date	%														
Contact procurement during planning to determine the bidding climate.	Ongoing	NA														
Perform cost-price reviews.	Ongoing	NA														
<div>L850-0020-T: Attrition or Staffing Turnover</div> <div>Legacy Risk #: 3212 & L850-0020-T</div>	<div>If attrition or staffing reductions result in staffing turnover during the project, then efficiency will be impacted, resulting in schedule delays.</div> <div>Risk Handling Strategy: Accept</div> <div>Probability: Somewhat Likely (50%) Worst Case Impacts: \$0.0K, 48 days</div>	<div></div>	<div></div>	<div>Risk Trigger: Staff or key personnel quits or retires.</div> <div><table><tr><td>Mitigation Action(s)</td><td>FC Date</td><td>%</td></tr><tr><td>Identify key personnel during planning.</td><td>Complete</td><td>100</td></tr><tr><td>Establish back up and alternates for key project positions to reduce impacts.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Maintain good documentation in the event a non-coordinated work turnover occurs.</td><td>Ongoing</td><td>NA</td></tr></table></div> <div>Mitigation Action Assessment: No major changes in the month of April. With little exception, key personnel positions have alternates and project documentation has reduced the impact of staff attrition.</div>	Mitigation Action(s)	FC Date	%	Identify key personnel during planning.	Complete	100	Establish back up and alternates for key project positions to reduce impacts.	Ongoing	NA	Maintain good documentation in the event a non-coordinated work turnover occurs.	Ongoing	NA
Mitigation Action(s)	FC Date	%														
Identify key personnel during planning.	Complete	100														
Establish back up and alternates for key project positions to reduce impacts.	Ongoing	NA														
Maintain good documentation in the event a non-coordinated work turnover occurs.	Ongoing	NA														

	Unmitigated Risk Impacts	Assessment		Comments
		Month	Trend	
L850 - Replace 200W 1.1M-gal PW Tank - Project Risks				
Unassigned Risks (Pending ownership of identified risks/opportunities)				
L850-0013-T: PFP Contamination	If Plutonium Finishing Plant (PFP) contamination spreads to the Project Site, then construction activities could be delayed, impacting project cost and schedule.			
Legacy Risk #: 3099	HMIS Comment: No major changes in the month of April.			
L850-0023-T: Department of Ecology disagrees with HMIS submitting two separate NOC applications for separate and non-overlapping air pollutants.	If the Department of Ecology does not agree with the project's strategy to submit separate NOC applications for separate and non-overlapping air pollutants, and if Ecology's interpretation of the WAC and "start of construction" differs from the project's interpretations and assumptions, then construction activities will be delayed impacting project schedule and cost.			
Legacy Risk #: L850-0023-T	HMIS Comment: Department of Ecology has requested a single combined NOC application be submitted for project L-897 as opposed to two single NOC applications as planned. The separate NOC applications were to account for two separate and non-overlapping air pollutants. The NOC applications were to be submitted when the air pollutants would occur within the project schedule. The air pollutant data for the generator won't be known until the generator is shipped and arrives on site. Conservative generator values will need to be used lacking finite details. Per communication from DOE and Ecology, six projects (L-897, L-895, L-850, L-849, L-826 & L-781) will submit a combined NOC application. All projects will also need to follow the new Hanford site modeling protocol. Total impacts still being assessed. Delays to NOC application approval due to needing additional time to modify the Best Available Control Technology/Toxic-Best Available Control Technology (BACT/T-BACT) analysis to include Selective Catalytic Reduction (SCR) and Diesel Particulate Filter (DPF) technologies, per Ecology's new direction, and to incorporate Volatile Organic Compounds/Ozone Depleting Substances (VOC/ODS) as identified in the recent Liquid Effluent Retention Facility (LERF) NOC application, also per Ecology's direction. This delay is impacting Construction Mobilization, Water to Grid, and Project Complete.			
L850-0024-T: Ambient Air Boundary on Hanford	If the Notice of Construction (NOC) application is not approved by the Department of Ecology due to disagreement on the ambient air boundary and ambient air modeling, then installation and testing of backup generator, and subsequent project activities are delayed impacting project schedule and cost.			
Legacy Risk #: L850-0024-T	HMIS Comment: No major changes in the month of April. This combined NOC approach has delayed installation of the emergency diesel generator at the 200W Pump House resulting in a delay to the 200E outage and related demolition and construction activities to install new pumps and piping within the 200E Pump House. Delays to NOC application approval due to needing additional time to modify the Best Available Control Technology/Toxic-Best Available Control Technology (BACT/T-BACT) analysis to include Selective Catalytic Reduction (SCR) and Diesel Particulate Filter (DPF) technologies, per Ecology's new direction, and to incorporate Volatile Organic Compounds/Ozone Depleting Substances (VOC/ODS) as identified in the recent Liquid Effluent Retention Facility (LERF) NOC application, also per Ecology's direction. This delay is impacting 200E RW Pumps Installed and Operational and Project Complete. Ecology has indicated that they have not completed their NOC internal review and initiated the public comment period. One of the positions for the reviewers is currently vacant, and it is assumed they would need to include the Nuclear Waste Program Manager (i.e., Richland Office Program Manager). Ecology presumes that this individual is very busy and is getting up to speed on things as they are a new employee. This delay is forecast to impact NOC approval by 12-weeks. Delays in NOC approval from Department of Ecology could drive cost impacts in commodities.			





4.4 HMIS L-888 Project Key Risks

- **BCRs:** No BCRs were processed in April that impact the project's MR or SM profile.
- **Risk Analysis:** A risk analysis was performed on L-888 in January 2021 in support of the development of a Critical Decision (CD) Implementation Approach document and Project Data Sheet (PDS).
- **Current Risk Posture:**

Table B-8. L-888 Risk Posture

Period	Realized	Key	Opened	Closed	Unassigned	Total Risks
March	-	-	-	-	-	-
April	0	2	0	0	5	10

Table B-9. L-888 Key Risks

Unmitigated Risk Impacts		Assessment		Comments												
		Month	Trend													
L-888, 400 Area Fire Station																
Explanation of major changes to the program monthly spotlight chart: L-888 Construction RFP was put on hold; cannot obtain pricing until DOE-RL issues the L-888 Task Order to HMIS. The construction services requisition is placed back to pending.																
Realized Risks (Risks that are currently impacting project cost/schedule)																
No realized risks in April.																
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)																
No critical risks in April.																
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																
L888-0005-T: Attrition or Staffing Turnover Legacy Risk #: 1986	If attrition or staffing reductions result in staffing turnover during the project, then efficiency will be impacted, resulting in schedule delays. Risk Handling Strategy: Accept Probability: Somewhat Likely (74%) Worst Case Impacts: \$0, 48 days			<div>Risk Trigger: Key project position staff turnover may impact project schedule.</div> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Identify key personnel during planning.</td><td>Complete</td><td>100</td></tr><tr><td>Establish back up and alternates for key project positions to reduce impacts.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Maintain good documentation in the event a non-coordinated work turnover occurs.</td><td>Ongoing</td><td>NA</td></tr></table> <div>Mitigation Action Assessment: No major changes in the month of April. With little exception, key personnel positions have alternates and project documentation has reduced the impact of staff attrition.</div>	Mitigation Action(s)	FC Date	%	Identify key personnel during planning.	Complete	100	Establish back up and alternates for key project positions to reduce impacts.	Ongoing	NA	Maintain good documentation in the event a non-coordinated work turnover occurs.	Ongoing	NA
Mitigation Action(s)	FC Date	%														
Identify key personnel during planning.	Complete	100														
Establish back up and alternates for key project positions to reduce impacts.	Ongoing	NA														
Maintain good documentation in the event a non-coordinated work turnover occurs.	Ongoing	NA														
L888-0009-T: Bid Comes in High Legacy Risk #: 1991	If contractor bid values come in higher than originally anticipated then project schedule and budget may be impacted. Risk Handling Strategy: Accept Probability: Somewhat Likely (26%) Worst Case Impacts: \$1,300.0K, 32 days			<div>Risk Trigger: Bids are received higher than expected.</div> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Contact procurement during planning to determine the bidding climate.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Perform cost-price reviews.</td><td>Ongoing</td><td>NA</td></tr></table> <div>Mitigation Action Assessment: No major changes in the month of April. This risk was identified as a key risk during the Quantitative Risk Analysis in January 2021.</div>	Mitigation Action(s)	FC Date	%	Contact procurement during planning to determine the bidding climate.	Ongoing	NA	Perform cost-price reviews.	Ongoing	NA			
Mitigation Action(s)	FC Date	%														
Contact procurement during planning to determine the bidding climate.	Ongoing	NA														
Perform cost-price reviews.	Ongoing	NA														
Unassigned Risks (Pending ownership of identified risks/opportunities)																
No unassigned risks identified in April.																







4.5 HMIS L-895 Project Key Risks



- **BCRs:** No BCRs were processed in **April** that impact the project's MR or SM profile.
- **Risk Analysis:** A risk analysis was performed on L-895 in April 2021 in support of the development of a Critical Decision (CD) Implementation Approach document and Project Data Sheet (PDS).
- **Current Risk Posture:**

Table B-10. L-895 Risk Posture

Period	Realized	Key	Opened	Closed	Unassigned	Total Risks
March	-	-	-	-	-	-
April	2	4	0	0	0	12

Table B-11. L-895 Key Risks

	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
L-895, Fire Protection Infrastructure for Plateau Raw Water													
Explanation of major changes to the program monthly spotlight chart: No major changes to the Stoplight Chart in April.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
L895-0015-T: Ambient Air Boundary on Hanford. Legacy Risk #: 3219	If the Notice of Construction (NOC) application is not approved by the Department of Ecology due to disagreement on the ambient air boundary and ambient air modeling, or delays in receiving an approval order or receiving enforcement discretion, then installation and testing of backup generator, and subsequent project activities are delayed impacting project schedule and cost. Risk Handling Strategy: Transfer Probability: Very Likely (95%) Worst Case Impacts: \$1,000.0K, 192 days			Risk Event: Delay in review of NOC application. <table><tr><th>Recovery Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Maintain open and clear communication between Ecology and DOE to avoid NOC delays or rejection.</td><td>Ongoing</td><td>NA</td></tr></table> Recovery Action Assessment: Ecology has indicated that they have not completed their NOC internal review and initiated the public comment period. One of the positions for the reviewers is currently vacant, and it is assumed they would need to include the Nuclear Waste Program Manager (i.e., Richland Office Program Manager). Ecology presumes that this individual is very busy and is getting up to speed on things as they are a new employee. This delay is forecast to impact NOC approval by 12-weeks.	Recovery Action(s)	FC Date	%	Maintain open and clear communication between Ecology and DOE to avoid NOC delays or rejection.	Ongoing	NA			
Recovery Action(s)	FC Date	%											
Maintain open and clear communication between Ecology and DOE to avoid NOC delays or rejection.	Ongoing	NA											
L895-0016-T: Sub-contract novation Legacy Risk #: NA	If existing (sub) contracts are not novated because of subcontracting expectations, then procurements will have to be re-accomplished impacting project schedule and cost. Risk Handling Strategy: Accept Probability: Likely (75%) Worst Case Impacts: \$200.0K, 32 days			Risk Event: The A/E contract was not novated during the HMIS contract transition. <table><tr><th>Recovery Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Re-accomplish Procurement process.</td><td>Complete</td><td>100</td></tr><tr><td>Award A/E contract.</td><td>May 2021</td><td>0</td></tr></table> Recovery Action Assessment: A/E support during construction, and other scope to be performed by the A/E (Operational Acceptance Test procedure development, new operation and maintenance procedure development) was planned to take place in the current period, but is now forecast to start in Fiscal Month May due to delays in awarding the A/E subcontract related to having to go through the full procurement process as this subcontract was not novated to HMIS.	Recovery Action(s)	FC Date	%	Re-accomplish Procurement process.	Complete	100	Award A/E contract.	May 2021	0
Recovery Action(s)	FC Date	%											
Re-accomplish Procurement process.	Complete	100											
Award A/E contract.	May 2021	0											
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)													
No critical risks identified in April.													
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)													
L895-0001-T: End-user requirements change post design phase. Legacy Risk #: 1866	If the project scope changes during execution because there is a change in end-user or other line organization usage requirements then a redesign will be likely resulting in schedule and cost impacts. Risk Handling Strategy: Accept Probability: Somewhat Likely (50%) Worst Case Impacts: \$500.0K, 70 days			Risk Trigger: Change in project scope during execution, of which the W-LAN system and all system modifications are a large contributor. <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Risk is accepted with no mitigation actions planned at this time.</td><td>Ongoing</td><td>NA</td></tr></table> Mitigation Action Assessment: No major changes in the month of April.	Mitigation Action(s)	FC Date	%	Risk is accepted with no mitigation actions planned at this time.	Ongoing	NA			
Mitigation Action(s)	FC Date	%											
Risk is accepted with no mitigation actions planned at this time.	Ongoing	NA											

	Unmitigated Risk Impacts	Assessment		Comments						
		Month	Trend							
L-895, Fire Protection Infrastructure for Plateau Raw Water										
L895-0002-T: Procurement cycle is delayed. Legacy Risk #: 1863	If procurement bid cycle is delayed because of excessive RFP questions, delay in receipt of bids, vendor supply issues, new procurement thresholds or processes, or quality concerns then additional procurement cycle time may be necessary impacting project schedule. Risk Handling Strategy: Accept Probability: Somewhat Likely (50%) Worst Case Impacts: \$0, 48 days			Risk Trigger: Delays to award A/E services contract. <table border="1"><thead><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>HMIS Procurements negotiate with A/E firm.</td><td>Ongoing</td><td>NA</td></tr></tbody></table> Mitigation Action Assessment: HMIS has received several BAFO submittals from Jacobs and is currently moving to award the A/E contract in May 2021.	Mitigation Action(s)	FC Date	%	HMIS Procurements negotiate with A/E firm.	Ongoing	NA
Mitigation Action(s)	FC Date	%								
HMIS Procurements negotiate with A/E firm.	Ongoing	NA								
Unassigned Risks (Pending ownership of identified risks/opportunities)										
No unassigned risks identified in April.										



4.6 HMIS L-897 Project Key Risks

- **BCRs:** No BCRs were processed in April that impact the project's MR or SM profile.
- **Risk Analysis:** A risk analysis was performed on L-897 in December 2020 in support of the development of a Critical Decision (CD) Implementation Approach document and Project Data Sheet (PDS).
- **Current Risk Posture:**





Table B-12. L-897 Risk Posture

Period	Realized	Key	Opened	Closed	Unassigned	Total Risks
March	1	2	0	0	3	37
April	1	2	0	0	3	37

Table B-13. L-897 Key Risks

	Unmitigated Risk Impacts	Assessment		Comments												
		Month	Trend													
L897 - Central Plateau Water Treatment Facility - Project Risks																
Explanation of major changes to the program monthly spotlight chart: No major changes to the Spotlight Chart in April.																
Realized Risks (Risks that are currently impacting project cost/schedule)																
L897-0015-T: Procurement bid cycle delays. Legacy Risk #: 2052	If procurement bid cycle is delayed because of excessive RFP questions, delay in receipt of bids, vendor supply issues, or quality concerns then additional procurement cycle time may be necessary impacting project schedule. Risk Handling Strategy: Accept Probability: Likely (75%) Worst Case Impacts: 48 days			Risk Event: Membrane vendor does not agree with the Terms and Conditions of HMIS's service contract, delaying the membrane procurement process. <table border="1"><thead><tr><th>Recovery Action(s)</th><th>FC Date</th><th>%</th></tr></thead><tbody><tr><td>HMIS Procurements negotiate with vendor.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Award membrane and processing equipment procurement & fabrication contract (L897-6520A6).</td><td>06/2021</td><td>41</td></tr><tr><td>Notice to commence manufacture (L897-1404).</td><td>08/2021</td><td>0</td></tr></tbody></table> Recovery Action Assessment: No major changes in the month of April. On 1/25/2021 HMSEC restarted the procurement process with the membrane vendor leading to a revised procurement	Recovery Action(s)	FC Date	%	HMIS Procurements negotiate with vendor.	Ongoing	NA	Award membrane and processing equipment procurement & fabrication contract (L897-6520A6).	06/2021	41	Notice to commence manufacture (L897-1404).	08/2021	0
Recovery Action(s)	FC Date	%														
HMIS Procurements negotiate with vendor.	Ongoing	NA														
Award membrane and processing equipment procurement & fabrication contract (L897-6520A6).	06/2021	41														
Notice to commence manufacture (L897-1404).	08/2021	0														

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	Unmitigated Risk Impacts	Assessment		Comments																		
		Month	Trend																			
L897 - Central Plateau Water Treatment Facility - Project Risks																						
				schedule. Terms and conditions discussions are ongoing. HMIS new lower procurement notification thresholds, and negotiations of Terms and Conditions are driving a projected delay in Membrane Contract award and downstream install activities.																		
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)																						
L897-0017-T: Change orders, RCIs, DCNs or change orders. Legacy Risk #: 2054	If there is an abnormal amount of change orders, Request for Clarification or Information (RCIs), Design Change Notices (DCNs), or change orders, then project will be impacted. Risk Handling Strategy: Accept Probability: Somewhat Likely (50%) Worst Case Impacts: \$300K, 48 days			Risk Trigger: Abnormal amount of RCIs, DCNs or change orders will increase project schedule and create delays <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Complete a sound and well written FRDC, encourage detail from all reviewers.</td><td>Complete</td><td>100</td></tr><tr><td>Develop a well written SOW that clearly details the scope and end result of the project.</td><td>Complete</td><td>100</td></tr><tr><td>Encourage questions and exchanges during RFP that will eliminate change orders, RCIs and/or DCNs later. Clearly write in RFP the review times for change orders, RCIs and DCNs for all parties to limit delays in responses.</td><td>Complete</td><td>100</td></tr><tr><td>Maintain open communication with design/construction subcontractor to allow for exchanges to happen organically.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Provide change order, RCI and DCN responses within timeframe identified in RFP.</td><td>Ongoing</td><td>NA</td></tr></table> Mitigation Action Assessment: No major changes in the month of April. There have been numerous communication issues with A/E reaching out to membrane vendor and incorporating the membrane specs into the project design. The project has implemented ongoing increased communication with the design and construction subcontractors to minimize future potential impacts. All change order, RCI, and DCN responses are provided within the timeframe identified in the RFP. The A/E didn't meet the FRDC water demand documented in Pall RCI 30, driving the necessity of a 4th membrane rack. Contracts continues being diligent on reviewing claims from the A/E and has requested back up to support the labor rates they are charging. MSA negotiated down the A/E labor claims resulting in November 2020's BCR VMSA-21-007.	Mitigation Action(s)	FC Date	%	Complete a sound and well written FRDC, encourage detail from all reviewers.	Complete	100	Develop a well written SOW that clearly details the scope and end result of the project.	Complete	100	Encourage questions and exchanges during RFP that will eliminate change orders, RCIs and/or DCNs later. Clearly write in RFP the review times for change orders, RCIs and DCNs for all parties to limit delays in responses.	Complete	100	Maintain open communication with design/construction subcontractor to allow for exchanges to happen organically.	Ongoing	NA	Provide change order, RCI and DCN responses within timeframe identified in RFP.	Ongoing	NA
Mitigation Action(s)	FC Date	%																				
Complete a sound and well written FRDC, encourage detail from all reviewers.	Complete	100																				
Develop a well written SOW that clearly details the scope and end result of the project.	Complete	100																				
Encourage questions and exchanges during RFP that will eliminate change orders, RCIs and/or DCNs later. Clearly write in RFP the review times for change orders, RCIs and DCNs for all parties to limit delays in responses.	Complete	100																				
Maintain open communication with design/construction subcontractor to allow for exchanges to happen organically.	Ongoing	NA																				
Provide change order, RCI and DCN responses within timeframe identified in RFP.	Ongoing	NA																				
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)																						
L897-0016-T: Attrition, staffing reductions. Legacy Risk #: 2053	If attrition or staffing reductions result in staffing turnover during the project, then efficiency will be impacted, resulting in schedule delays. Risk Handling Strategy: Accept Probability: Somewhat Likely (26%) Worst Case Impacts: \$0, 48 days			Risk Trigger: Key project position staff turnover may impact project schedule. <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Identify key personnel during planning.</td><td>Complete</td><td>100</td></tr><tr><td>Establish back up and alternates for key project positions to reduce impacts.</td><td>Ongoing</td><td>NA</td></tr><tr><td>Maintain good documentation in the event a non-coordinated work turnover occurs.</td><td>Ongoing</td><td>NA</td></tr></table> Mitigation Action Assessment: No major changes in the month of April. With little exception, key personnel positions have alternates and project documentation has reduced the impact of staff attrition.	Mitigation Action(s)	FC Date	%	Identify key personnel during planning.	Complete	100	Establish back up and alternates for key project positions to reduce impacts.	Ongoing	NA	Maintain good documentation in the event a non-coordinated work turnover occurs.	Ongoing	NA						
Mitigation Action(s)	FC Date	%																				
Identify key personnel during planning.	Complete	100																				
Establish back up and alternates for key project positions to reduce impacts.	Ongoing	NA																				
Maintain good documentation in the event a non-coordinated work turnover occurs.	Ongoing	NA																				
Unassigned Risks (Pending ownership of identified risks/opportunities)																						
L897-0046-T: Ambient Air Boundary on Hanford. Legacy Risk #: 3220	HMIS Comment: Department of ecology rejected the L-895 NOC based on the ambient air boundary as prescribed by DOE. A combined NOC application is now being pursued for projects L-897, L-895, L-850, L-849, L-826, and L-781 due to recent communication from DOE and Ecology to group or otherwise combine multiple projects. Delays to NOC application approval due to needing additional time to modify the Best Available Control Technology/Toxic-Best Available Control Technology (BACT/T-BACT) analysis to include Selective Catalytic Reduction (SCR) and Diesel Particulate Filter (DPF) technologies, per Ecology's new direction, and to incorporate Volatile Organic Compounds/Ozone Depleting Substances (VOC/ODS) as identified in the recent Liquid Effluent Retention Facility (LERF) NOC application, also per Ecology's direction. This delay is impacting Construction Mobilization, Water to Grid, and Project Complete. Ecology has indicated that they have not completed their NOC internal review and initiated the public comment period. One of the positions for the reviewers is currently vacant, and it is assumed they would need to include the Nuclear Waste Program Manager (i.e., Richland Office Program Manager). Ecology presumes that this individual is very busy and is getting up to speed on things as they are a new employee. This delay is forecast to impact NOC approval by 12-weeks. Delays in NOC approval from Department of Ecology could drive cost impacts in commodities.																					

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	Unmitigated Risk Impacts	Assessment		Comments
		Month	Trend	
L897 - Central Plateau Water Treatment Facility - Project Risks				
L897-0043-T: Delayed External Review and Approval Cycles. Legacy Risk # L897-0004-T (2051)	HMIS Comment: Project L-897 has been defined as a potential Reportable General Plant Project (GPP). As the project has progressed and become more defined, the Total Estimated Cost (TEC) is now expected to exceed the GPP threshold of \$20M. Due to this, L-897 is now required to be executed as a Capital Line Item Project consistent with the principles and provisions in DOE 413.3B "Program and Project Management for the Acquisition of Capital Assets". During the development of the Project Data Sheet (PDS), it was established that Risk # L897-0004-T was not within HMIS’s ability to manage and the risk was tentatively transferred to DOE-RL, pending official transfer and acceptance via correspondence control and DOE-RL. Ecology has indicated that they have not completed their NOC internal review and initiated the public comment period. One of the positions for the reviewers is currently vacant, and it is assumed they would need to include the Nuclear Waste Program Manager (i.e., Richland Office Program Manager). Ecology presumes that this individual is very busy and is getting up to speed on things as they are a new employee. This delay is forecast to impact NOC approval by 12-weeks. Delays in NOC approval from Department of Ecology could drive cost impacts in commodities.			
L897-0044-T: Hanford Site Incident. Legacy Risk # L897-0022-T (2067)	HMIS Comment: Project L-897 has been defined as a potential Reportable General Plant Project (GPP). As the project has progressed and become more defined, the Total Estimated Cost (TEC) is now expected to exceed the GPP threshold of \$20M. Due to this, L-897 is now required to be executed as a Capital Line Item Project consistent with the principles and provisions in DOE 413.3B "Program and Project Management for the Acquisition of Capital Assets". During the development of the Project Data Sheet (PDS), it was established that Risk # L897-0022-T was not within HMIS’s ability to manage and the risk was tentatively transferred to DOE-RL, pending official transfer and acceptance via correspondence control and DOE-RL.			



4.7 HMIS L-934 Project Key Risks

- **BCRs:** No BCRs were processed in April that impact the project's MR or SM profile.
- **Risk Analysis:** No risks analysis conducted in April.
- **Current Risk Posture:**

Table B-14. L-934 Risk Posture

Period	Realized	Key	Opened	Closed	Unassigned	Total Risks
March	-	-	-	-	-	-
April	0	1	0	0	4	9

Table B-15. L-934 Key Risks

	Unmitigated Risk Impacts	Assessment		Comments									
		Month	Trend										
L934 – MSC Office Space Gap Reduction – 200E Area - Project Risks													
Explanation of major changes to the program monthly spotlight chart: No major changes to the Stoplight Chart in April.													
Realized Risks (Risks that are currently impacting project cost/schedule)													
No Realized Risks in April.													
Critical Risks (Severe impact to ultimate goals/objectives. Enforceable or incentivized milestone completion missed.)													
L934-0021-T: Change orders, RCIs, DCNs or claim orders. Legacy Risk #: NA	If there is an abnormal amount of change orders, Request for Clarification or Information (RCIs), Design Change Notices (DCNs), or contractor claim orders, then project schedule and cost may be impacted. Risk Handling Strategy: Mitigate Probability: Likely (85%) Worst Case Impacts: \$517.0K, 24 days			<div>Risk Trigger: Abnormal amount of change orders, RCIs, DCNs, contractor claim orders received.</div> <table><tr><th>Mitigation Action(s)</th><th>FC Date</th><th>%</th></tr><tr><td>Incorporate lessons learned from L-933.</td><td>Complete</td><td>100</td></tr><tr><td>Amend SOW and design reviews based on lessons learned.</td><td>Complete</td><td>100</td></tr></table> <div>Mitigation Action Assessment: No major changes in the month of April.</div>	Mitigation Action(s)	FC Date	%	Incorporate lessons learned from L-933.	Complete	100	Amend SOW and design reviews based on lessons learned.	Complete	100
Mitigation Action(s)	FC Date	%											
Incorporate lessons learned from L-933.	Complete	100											
Amend SOW and design reviews based on lessons learned.	Complete	100											
High Risk Threat Value (Recoverable slip to enforceable or incentivized milestone)													

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	Unmitigated Risk Impacts	Assessment		Comments
		Month	Trend	
L934 – MSC Office Space Gap Reduction – 200E Area - Project Risks				
No High Risks identified in April.				
Unassigned Risks (Pending ownership of identified risks/opportunities)				
L934-0015-T: Unexpected waste site or radiological area discovered. Legacy Risk #: NA	If an unexpected waste site or radiological area is discovered, then project schedule will be impacted. HMIS Comment: In April, Sewer line excavation and installation over area of deeply buried process sewer line was completed without encountering rad contaminated soil.			
L934-0016-T: Cultural or historical artifacts are discovered. Legacy Risk #: NA	If cultural or historical artifacts are found during construction, then project schedule will be impacted. HMIS Comment: In April, Sewer line excavation and installation over area of deeply buried process sewer line was completed without encountering cultural or historical artifacts.			
L934-0018-T: Adverse weather impacts Legacy Risk #: NA	If there is more adverse weather (hot, windy, snow, smoke, and lightning) than initially planned, design and/or construction progress will slow to compensate for the environmental changes and schedule will suffer. HMIS Comment: In April, weather impacts were not reported.			
L934-0019-T: Process sewer line integrity failure Legacy Risk #: NA	If contaminated material is discovered during excavation because the process sewer line has leached/ruptured, then affected material will have to be mitigated impacting project schedule and cost. HMIS Comment: In April, Sewer line excavation and installation over area of deeply buried process sewer line was completed without encountering rad contaminated soil.			

5.0 BASELINE CHANGE REQUESTS

In April, HMIS approved and implemented the following three Reliability Project BCRs into the CPB:

- BCR-HMS-21-016 “Aligning Reliability Projects to Vendor Subcontract Submittals”
- BCR-HMS-21-017 “Implement L-612 Condition Assessment”
- BCR-HMS-21-018 “Change Project Type for L-888 and L-897 and Incorporate Transformer Procurement into PMB”

The below table reflects upcoming BCRs.

Table B-16. Upcoming Baseline Change Requests

Project	BCR Scope	Target Implementation Month	Summary of Change
L-919	PMB	May-21	Add scope/budget for additional subcontractor channel planning
L-801	PMB	May-21	Add scope/budget for additional testing, Cyber Security testing schedule resequence, and incorporate CSG Outage
L-789	PMB	May-21	Incorporate construction subcontractor change orders
L-905	PMB	May-21	Establish New Level 6 WBS and Add Training Scope
L-534, L-603, L-883	PMB	May-21	Defer Road Projects scope
L-934, L-801	PMB	May-21	Align FFP task order scope
L-707	PMB	May-21	Establish New Level 6 WBS and Replan Implementation Scope
L-921	PMB	May-21	Fiber path reroute
L-897	PMB	May-21	Replan Membrane Procurement Milestone Payments
L-849	PMB	May-21	Replan Schedule Logic between Construction Contract Award and Final Design
L-895	PMB	May-21	Replan Construction/Commissioning due to Switchgear issues
L-894	PMB	May-21	Replan construction (cost/schedule) based on RPTO-006 and awarded construction subcontract
L-895, L-897, L-850, L-894	PMB	May-21	Combined water project Notice of Construction application delays

6.0 FUNDS ANALYSIS

Table B-17. IIP Funding Status for Reliability Project

HMIS FY 2021 Integrated Investment Portfolio Funding Status Reliability Project - April FY 2021 (\$000)												
CLIN	Task Order	Fund Source	IIP FYTD Perf	FYTD ACWP	Spending Variance	* Funds Received	Remaining Available Funds	** RL Expected Funding CBAG Rev 2	Total Outlook	Uncosted Balance	Carryover / Hold Backs	Unencum Balance
CLIN 4	N/A	RL-0020	163.6	89.7	73.9	523.5	433.8	2,034.0	1,743.3	290.7	243.3	47.4
CLIN 4	N/A	RL-0201	3,991.9	3,946.7	45.2	25,332.0	21,385.3	51,772.7	21,880.2	29,892.5	20,692.5	9,200.0
CLIN 7	RPTO-008	RL-0020	248.7	335.2	(86.5)	400.0	64.8	491.3	402.1	89.2	89.2	-
CLIN 7	RPTO 002	RL-0201	1,679.0	1,619.7	59.3	3,420.3	1,800.6	14,253.7	8,097.8	6,155.9	5,627.1	528.8
CLIN 7	RPTO 005	RL-0201	1,185.1	1,164.9	20.2	1,962.0	797.1	2,007.8	2,006.0	1.8		1.8
CLIN 7	RPTO 006	RL-0201	638.4	720.2	(81.8)	1,378.0	657.8	2,267.8	1,794.3	473.5	467.8	5.7
CLIN 7	RPTO 007	RL-0201	421.0	533.5	(112.5)	650.0	116.5	2,509.5	1,932.5	577.0	540.4	36.6
CLIN 7	RPTO 008	RL-0201	167.3	223.5	(56.2)	258.5	35.0	260.9	268.2	(7.3)		(7.3)
CLIN 7	RPTO TBD	RL-0201			-		-	1,048.0	3.5	1,044.5	1,044.3	0.2
CLIN 7	Fee / Adj	RL-0201			-		-	1,787.8	1,787.8	-	565.9	(565.9)
		TOTAL	8,495.0	8,633.4	(138.4)	33,924.3	25,290.9	78,433.5	39,915.7	38,517.8	29,270.5	9,247.3

* Funds received through Contract P00066 dated April 29, 2021

** RL Expected Funding thru CBAG Rev 2 - Pending approval of Integrated Investment Portfolio. Further reductions to be identified by DOE-RL in CBAG Rev 3. These potential reductions of \$9.2M have been identified in the Outlook and Hold Backs.

Spending Variance Analysis: The variance in CLIN 7 (RPTO-007) is primarily due to early installation of Remote Terminal Unit's (RTU's) for Project L-801, Upgrade Supervisory Control and Data Acquisition (SCADA) system.

Uncosted Balance: The \$38.5M uncosted balance is primarily due to-612, 230kV Transmission System Reconditioning and Sustainability Repairs that is being held back pending DOE-RL direction and is funding specifically held for Project L-612. A portion of the uncosted balance is for Encumbered Carryover scope totaling \$9.1M will complete in FY22. Several road projects are on hold pending a potential funding reduction of \$5.2 causing an uncosted balance. In addition, there are balances remaining for risk reserve and potential for new project scope.

Table B-18. Key Milestones

Project	Description	Due Date	Actual Date	Forecast Date	Variance
RPTO-002	Task Order Submittal	4/28/21		5/25/21	
RPTO-005	Task Order Submittal	4/07/21	4/08/21		
RPTO-006	Task Order Submittal	4/14/21	4/27/21		
RPTO-007	Task Order Submittal	4/21/21		5/20/21	

- Submitted TO proposals have not yet been accepted by DOE-RL.

7.0 MAJOR ISSUES

Nothing to report.

8.0 DOE ACTIONS/DECISIONS

Nothing to report.

9.0 GOVERNMENT FURNISHED SERVICES AND INFORMATION (GFS/I)

Nothing to report.

10.0 RELIABILITY PROJECTS

Additional Reliability Project specific information/data is available upon request.

Appendix A

Contract Performance Reports

Format 1 – Work Breakdown Structure

Format 3 – Baseline

Format 5 – Explanation and Problem Analysis

1.0 FORMAT 1, DD FORM 2734/1, WORK BREAKDOWN STRUCTURE

CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE										DOLLARS IN Thousands		FORM APPROVED OMB No. 0704-0288			
1. CONTRACTOR		2. CONTRACT		3. PROGRAM				4. REPORT PERIOD							
a. NAME Hanford Mission Integration Solutions		a. NAME Hanford Mission Essential Services Contract		a. NAME Hanford Mission Essential Services Contract				a. From 2021 / 03 / 22							
b. LOCATION (Address and Zip Code) Richland, WA 99352		b. NUMBER 89303120DEM000031		b. PHASE Operations				b. To 2021 / 04 / 25							
c. TYPE CR, CFAF & IDIQ		d. SHARE RATIO N/A		c. EVMS ACCEPTANCE No X Yes											
5. CONTRACT DATA															
a. QUANTITY	b. NEGOTIATED COST	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK	d. TARGET PROFIT/FEE	e. TARGET PRICE	f. ESTIMATED PRICE	g. CONTRACT CEILING	h. ESTIMATED CONTRACT CEILING	i. DATE OF OTS/OTS							
N/A	\$3,760,344	\$83,310	\$25,164	\$4,011,978	\$4,103,949	4,011,978	4,103,949	N/A							
6. ESTIMATED COST AT COMPLETION															
CONTRACT BUDGET BASE (2)										VARIANCE (3)					
a. NAME (Last, First, Middle Initial) Wilkinson, Robert E										b. TITLE President & General Manager					
c. SIGNATURE ROBERT WILKINSON (Affiliate)										d. DATE SIGNED Digitally signed by ROBERT WILKINSON (Affiliate)					
a. BEST CASE \$3,843,654										b. WORST CASE \$4,044,931					
c. MOST LIKELY \$3,852,315										d. DATE 2021.05.24 08:38:52 -07'00'					
8. PERFORMANCE DATA															
Item (1)	Current Period				Cumulative to Date				At Completion						
	Budgeted Cost Work Scheduled (2)	Actual Cost Work Performed (3)	Variance Schedule (4)	Cost (5)	Budgeted Cost Work Scheduled (6)	Actual Cost Work Performed (7)	Variance Schedule (8)	Cost (9)	Budgeted (10)	Estimated (11)	Variance (12)				
a. WORK BREAKDOWN STRUCTURE ELEMENT															
4001.01.01 - Contract Transition	0	(0)	(15)	(0)	15	6,405	6,405	5,641	0	765	6,405	5,641	765		
CLIN 1 Subtotal	0	(0)	(15)	(0)	15	6,405	6,405	5,641	0	765	6,405	5,641	765		
4001.01.02 - Legacy Benefits Plans	4,292	4,292	1,583	0	3,109	10,986	10,986	6,010	0	4,976	448,037	441,277	6,760		
CLIN 3 Subtotal	4,292	4,292	1,583	0	3,109	10,986	10,986	6,010	0	4,976	448,037	441,277	6,760		
4001.04.01 - Utilities & Infrastructure	3,738	3,738	3,387	(0)	550	9,750	9,750	8,569	0	1,181	326,288	326,549	(261)		
4001.04.02 - Transportation	65	65	115	0	(51)	117	117	116	0	1	405	717	(312)		
4001.04.03 - Safeguards & Security	6,055	6,180	6,622	125	(442)	15,121	15,247	17,127	126	(1,881)	573,225	581,588	(8,364)		
4001.04.04 - Emergencies & First Responders	3,675	3,675	3,286	0	388	9,404	9,404	8,475	0	929	291,240	289,552	1,688		
4001.04.05 - Training & Workforce Readiness	1,052	1,052	987	(0)	45	2,541	2,541	2,358	0	184	98,449	99,154	(1,105)		
4001.04.06 - Information Technology & Mgmt	3,750	3,679	3,352	(70)	327	9,470	9,462	8,003	(7)	1,469	281,043	280,859	184		
4001.04.07 - Business Services	1,134	1,134	998	0	136	2,901	2,901	2,489	0	412	118,420	118,455	(35)		
4001.04.08 - Real Property Asset Mgmt	1,715	1,546	2,632	(169)	(1,086)	4,287	4,124	5,058	(163)	(934)	135,608	140,815	(5,207)		
4001.04.09 - Environmental Stewardship & Mgmt	752	752	584	0	168	1,452	1,452	1,422	0	30	45,713	44,979	734		
4001.04.10 - Environmental Integration	2,161	2,161	2,499	0	(338)	5,530	5,530	5,072	0	458	195,811	194,397	1,414		
4001.04.11 - Safety & QA	2,172	2,172	2,737	(0)	(565)	5,992	5,992	6,675	0	(683)	252,083	254,305	(2,222)		
4001.04.12 - General Performance Requirements	4,726	4,726	4,224	(0)	502	10,826	9,976	9,870	(851)	105	255,392	254,303	(1,089)		
4001.07.01 - IRP - Water System	1,196	820	712	(376)	108	2,186	1,105	1,050	(1,081)	56	5,754	5,802	(48)		
4001.07.02 - IRP - Sewer System	41	22	6	(19)	16	85	48	35	(37)	13	133	95	38		
4001.07.03 - IRP - Electrical System	726	728	1,115	2	(387)	3,507	1,840	1,915	(1,667)	(75)	6,823	8,198	(1,375)		
4001.07.04 - IRP - Roads & Grounds	34	21	43	(13)	(22)	79	66	127	(14)	(61)	5,262	5,300	(38)		
4001.07.05 - IRP - Facility System	220	263	297	44	(34)	569	538	492	(31)	46	3,491	3,588	(97)		
4001.07.06 - IRP - Network & Telecom System	989	204	151	(786)	53	1,586	879	279	(1,207)	(9)	4,660	5,466	(807)		
CLIN 4 Subtotal	34,180	32,917	33,546	(1,269)	(629)	85,505	80,573	79,133	(4,932)	1,441	2,599,799	2,612,121	(12,322)		
4001.05.01 - DOE Small Business Pre-Award Support	24	24	0	0	24	43	43	0	0	43	2,419	2,409	10		
CLIN 5 Subtotal	24	24	0	0	24	43	43	0	0	43	2,419	2,409	10		
4001.07.01 - IRP - Water System	882	346	558	(535)	(212)	2,055	2,113	2,340	58	(227)	15,097	15,987	(890)		
4001.07.02 - IRP - Electrical System	190	252	359	61	(107)	448	370	534	(77)	(163)	2,301	2,473	(172)		
4001.07.03 - IRP - Facility System	532	469	473	(63)	(4)	982	1,173	1,165	191	8	2,009	2,006	3		
4001.07.04 - IRP - Network & Telecom System	111	312	264	202	48	688	590	559	(98)	31	688	670	17		
4001.07.07 - IRP - Out-Year Summary Level Planning Package	0	0	0	0	0	0	0	0	0	0	341,394	338,574	2,820		
CLIN 7 Subtotal	1,715	1,379	1,654	(335)	(274)	4,173	4,246	4,597	73	(351)	361,488	359,710	1,778		
4001.08.01 - DOE Directed Work Scope	575	575	313	0	262	1,472	1,078	0	393	2,907	3,789	3,789	(882)		
4001.08.03 - Portfolio Management Task Orders	8	8	1	0	7	21	21	13	0	8	21	13	8		
4001.08.07 - DOWS - Out-Year Summary Level Planning Package	0	0	0	0	0	0	0	0	0	0	207,574	207,352	222		
CLIN 8 Subtotal	583	583	314	0	269	1,492	1,492	1,092	0	401	210,502	211,155	(652)		
b. COST OF MONEY															
c. GENERAL AND ADMINISTRATIVE															
d. UNDISTRIBUTED BUDGET															
e. SUBTOTAL	40,794	39,196	36,682	(1,598)	2,514	108,604	103,746	96,472	(4,859)	7,274	3,843,654	3,852,315	(8,661)		
f. MANAGEMENT RESERVE											0	0	0		
g. TOTAL	40,794	39,196	36,682	(1,598)	2,514	108,604	103,746	96,472	(4,859)	7,274	3,843,654	3,852,315	(8,661)		
9. RECONCILIATION TO CONTRACT BUDGET BASE															
b. VARIANCE ADJUSTMENT															
d. TOTAL CONTRACT VARIANCE															
										3,843,654		3,852,315		(8,661)	

APPENDIX A

2.0 FORMAT 3, DD FORM 2734/3, BASELINE

CONTRACT PERFORMANCE REPORT FORMAT 3 - BASELINE															DOLLARS IN Thousands		FORM APPROVED OMB No. 0704-0188	
1. Contractor		2. Contract		3. Program		4. Report Period												
a. Name Hanford Mission Integration Solutions		a. Name Hanford Mission Essential Services Contract		a. Name Hanford Mission Essential Services		a. From (2021/03/22)												
b. Location (Address and Zip Code) Richland, WA 99352		b. Number 89303320DEM000031		b. Phase Operations		b. To (2021/04/25)												
c. TYPE CR, CPAF & IDIQ		d. Share Ratio N/A		c. EVMS ACCEPTANCE No X Yes														
5. CONTRACT DATA																		
a. ORIGINAL NEGOTIATED COST \$3,750,727		b. NEGOTIATED CONTRACT CHANGES \$9,617		c. CURRENT NEGOTIATED COST (a+b) \$3,760,344		d. ESTIMATED COST OF UNAUTHORIZED UNPRICED WORK \$83,310		e. CONTRACT BUDGET BASE (C+D) \$3,843,654		f. TOTAL ALLOCATED BUDGET \$3,843,654		g. DIFFERENCE (E - F) \$0						
h. CONTRACT START DATE 2020/8/17		i. CONTRACT DEFINITIZATION DATE 2019/12/5		j. PLANNED COMPLETION DATE 2030/8/16		k. CONTRACT COMPLETION DATE 2030/8/16		l. ESTIMATED COMPLETION DATE 2030/8/16										
6. PERFORMANCE DATA																		
ITEM (1)	BCWS CUMULATIVE TO DATE (2)	BCWS FOR REPORT PERIOD (3)	BUDGETED COST FOR WORK SCHEDULED (BCWS) (Non-Cumulative)												UNDISTRIBUTED BUDGET (15)	TOTAL BUDGET (16)		
			Six Month Forecast By Month								Remaining Forecast By Month & Fiscal Year							
			MAY FY21 (4)	JUN FY21 (5)	JUL FY21 (6)	AUG FY21 (7)	SEP FY21 (8)	OCT FY22 (9)	NOV FY22 (10)	Remaining FY22 (11)	BP FY23-25 (12)	OP1 FY25-28 (13)	OP2 FY28-30 (14)					
a. PERFORMANCE MEASUREMENT BASELINE (Beginning of Period)	67,810	39,293	33,619	32,223	38,854	32,427	47,478	20,318	24,712	248,310	876,528	946,155	1,212,085	182,483	3,802,296			
b. BASELINE CHANGES AUTHORIZED DURING REPORT PERIOD	40,794	(39,293)	787	919	1,256	557	992	(1,295)	(139)	1,332	0	(0)	2,926	32,520	41,357			
c. PERFORMANCE MEASUREMENT BASELINE (End of Period)	108,604	0	34,407	33,142	40,111	32,984	48,470	19,023	24,573	249,643	876,528	946,155	1,215,010	215,003	3,843,654			
7. MANAGEMENT RESERVE													0	0	0			
8. TOTAL	108,604	0	34,407	33,142	40,111	32,984	48,470	19,023	24,573	249,643	876,528	946,155	1,215,010	215,003	3,843,654			

1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Hanford Mission Integration Solutions, LLC	a. Name Hanford Mission Essential Services Contract(HMESC)	a. Name Hanford Mission Essential Services Contract(HMESC)	a. From (2021/03/22)
b. Location (Address and Zip Code) PO Box Richland, WA 99352	b. Number-89303320DEM00031 c. Type CR, CPAF,IDIQ d. Share Ratio	b. Phase - Operations c. EVMS Acceptance NO X YES	b. To (2021/04/25)
Evaluation			

3.0 FORMAT 5, DD FORM 2734/5, EXPLANATIONS AND PROBLEM ANALYSIS

(\$K) - April	BCWS	BCWP	ACWP	SV \$	SV %	CV \$	CV %	SPI	CPI
Current:	\$ 40,794	\$ 39,196	\$ 36,682	\$(1,598)	-3.9%	\$ 2,514	6.4%	0.96	1.07
Cumulative:	\$ 108,604	\$ 103,746	\$ 96,472	\$(4,858)	-4.5%	\$ 7,274	7.0%	0.96	1.08
	BAC	EAC	VAC \$	VAC %	TCPI				
At Completion:	\$3,843,654	\$3,852,315	\$ (8,661)	-0.2%	1.00				

Explanation of Variance /Description of Problem:

Current Month (CM) Cost Variance (CV):

The favorable CM CV is \$2,514K or 6.4% primarily driven by:

(+\$3.1M) 4001.03.01 - Legacy Benefit Plans - The favorable CM CV is primarily due to invoicing during the contract startup and transitioning of plans from prior entity to HMIS.

(+\$550K) 4001.04.01 - Utilities & Infrastructure – The favorable CM CV is primarily due road patching, paving and road service budgets were level-loaded but the majority of the work occurs during summer months.

(-\$1.1M) 4001.04.08 - Real Property Asset Mgmt. – The unfavorable CM CV is primarily due ACWP variance of BCWS driven by initial BCWS establishment of CLIN 4 allocation.

Impacts – N/A.

Corrective Action – N/A.

Current Month (CM) Schedule Variance (SV):

The unfavorable CM SV is -\$1,598K or -3.9% primarily driven by:

(-\$912K) 4001.07.01 - IRP - Water System – The CM unfavorable schedule variance for IRP Water System has several drivers from multiple projects. Drivers include:

- L-897, Central Plateau Water Treatment Facility membrane procurement award being delayed. The first milestone payment was planned to occur in the current period. A BCR is in progress to re-plan this scope of work. (-\$1,126k)
- L-781, 181D Vertical Turbine Pumps schedule recovery in the current period for 30% design completion that was planned in a prior period (\$527k)
- L-895, Fire Protection Infrastructure for PRW A/E services subcontract delayed award which is impacting ongoing construction and procedure scope. The A/E services subcontract was not novated at transition from MSA to HMIS and a new procurement solicitation is underway. (-\$187k)

1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Hanford Mission Integration Solutions, LLC	a. Name Hanford Mission Essential Services Contract(HMESC)	a. Name Hanford Mission Essential Services Contract(HMESC)	a. From (2021/03/22)
b. Location (Address and Zip Code) PO Box Richland, WA 99352	b. Number-89303320DEM00031 c. Type CR, CPAF,IDIQ d. Share Ratio	b. Phase - Operations c. EVMS Acceptance NO X YES	b. To (2021/04/25)
Evaluation			

(-\$584K) 4001.07.06 - IRP - Network & Telecom System – The CM unfavorable SV for IRP Network & Telecom System has two significant drivers:

- L-921, Telecom Hut at Met Tower schedule recovery in the current period for telecom hut prep work and placement. Scope was planned in a prior period (\$77k)
- L-937, Gabe East Footprint Reduction (Phase 1) Engineering Change Request driving schedule impacts to RSC and Solar Array procurement and construction activities. ECR forecasted to complete in May. Windcube procurement receipt expected in late May. (- \$698k)

Impacts – N/A.

Corrective Action –N/A.

Cumulative To Date (CTD) Cost Variance (CV):

The favorable CTD CV is \$7,274K or 7% primarily driven by:

- **(+\$4,976K) 4001.03.01 – Legacy Benefit Plans** – Positive cost variance due to timing of invoices per contract startup and transitioning of plans from prior entity.
- **(+1,459K) 4001.04.06 – Information Technology & Mgmt** - Savings associated with the majority of the Information Technology scope and all of the records scope transferring to North Wind Services rather than internal labor. Other variances include a delay in hiring for Material Difference FTEs and the software license budget being level-loaded rather than time-phased for the correct period in which the invoice will be received.
- **(+\$1,181K) 4001.04.01 – Utilities and Infrastructure** – Road patching, paving and road service budgets were level-loaded but the majority of the work occurs during summer months.
- **(+\$929) 4001.04.04 – Emergencies & First Responders** - Due to less than planned subcontract support, time phasing of material and equipment costs for consumables supporting level of effort scope and time phasing of Hanford Fire Department (HFD) vehicle maintenance costs. These favorable variances have been partially offset by increased labor costs to account for HFD Platoon support.
- **(+\$765K) 4001.01.01 - Contract Transition** - The favorable CTD CV is primarily due to an underrun in transition contract value. Final transition costs are still expected from the MSA corporate account transfer to HMIS CLIN 1.
- **(-\$1,881K) 4001.04.03 - Safeguards & Security** - Security and Patrol labor costs exceeding proposed budgets, and subcontractor costs for North Wind IT and Project Management support. Proposed labor estimates were based on forty-hour standard workweeks and did not include estimated hours for non-standard OT shifts.

Impacts – N/A.

Corrective Action – N/A.

1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Hanford Mission Integration Solutions, LLC	a. Name Hanford Mission Essential Services Contract(HMESC)	a. Name Hanford Mission Essential Services Contract(HMESC)	a. From (2021/03/22)
b. Location (Address and Zip Code) PO Box Richland, WA 99352	b. Number-89303320DEM00031 c. Type CR, CPAF,IDIQ d. Share Ratio	b. Phase - Operations c. EVMS Acceptance NO X YES	b. To (2021/04/25)
Evaluation			

Cumulative To Date (CTD) Schedule Variance (SV):

The unfavorable CTD SV is -\$4,858K or -4.5% primarily driven by:

(-\$1,745K) 4001.07.03 - Electrical Systems –

- Project L-789, Priority T&D Sys Wood PP Test & Replace, having low likelihood planning and unplanned cutovers as well as Titan crews being dispatched to support power outages in Oregon.
- Project L-720, Outdoor Lighting Reconfiguration & Repl, primarily due to Subcontractor mobilizing on site a few weeks later than planned due to too much snow on site.

(-\$1,305K) 4001.07.06 - Network & Telecom Systems –

- Project L-937, Gable East Footprint Reduction (Phase 1) due to the project continuing to recover from the pause at contract transition. The project team implemented the prior months' work scope and did not perform the baseline work scheduled in Fiscal Month March. Authorization to perform work was received on February 8, 2021, two weeks after the HMIS contract had begun. The project has also experienced delays with Radio Services Contract and Solar Array design tasks, with the Engineering Change Request (ECR) development taking longer to complete, and is holding up construction activities that were scheduled to start in April. ECRs are now completing in May and schedule is expected to be partially recovered during construction. The project was also planning on receiving the Windcube procurement (\$635K) in April for the Air Sampling Unit, but it has been delayed on its journey from Europe and will not arrive until May.
- Project L-921, Telecom Hut at Met Tower, is due to the Subcontractor mobilizing on site a few weeks later than planned due to too much snow on site.

(-\$1,023K) 4001.07.01 - Electrical Systems –

- Project L-897, Central Plateau Water Treatment Facility, primarily due to the construction subcontractor's accelerated progress on long lead procurement submittals (Pre-Engineered Metal Building, Emergency Diesel Generator, Air Handling Units, and Air Conditioning Units). Progress on long lead procurement submittals were planned to be level loaded throughout the procurement effort, and therefore BCWS was spread over the procurement period. Significant progress on long lead procurement items was made in the current period due to close coordination between the construction subcontractor and their lower-tiers to ensure long lead procurements and submittals are completed prior to need dates.
- Project L-895, Fire Protection Infrastructure for PRW, primarily due to delay in awarding the Architect/Engineering (A/E) services subcontract. A/E support during construction, and other scope to be performed by the A/E (Operational Acceptance Test procedure development, new operation and maintenance procedure development) was planned to take place in the current period. A/E scope is now forecast to start in Fiscal Month April as this subcontract was not novated to HMIS. The majority of the current month schedule variance is anticipated

1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Hanford Mission Integration Solutions, LLC	a. Name Hanford Mission Essential Services Contract(HMESC)	a. Name Hanford Mission Essential Services Contract(HMESC)	a. From (2021/03/22)
b. Location (Address and Zip Code) PO Box Richland, WA 99352	b. Number-89303320DEM00031 c. Type CR, CPAF,IDIQ d. Share Ratio	b. Phase - Operations c. EVMS Acceptance NO X YES	b. To (2021/04/25)
Evaluation			

to be recovered by Fiscal Month July after the A/E has progressed Operational Acceptance Test procedure development.

(-\$851K) 4001.04.12 – General Performance Requirements - Vendor experiencing COVID impacts due to supply chain issues and workforce outages that delayed Hazmats March delivery to the out-months.

Impacts – N/A

Corrective Action – N/A.

Variance at Complete (VAC):

The unfavorable VAC is primarily due to HMIS material differences (MDs) that were identified during the due diligence process. HMIS submitted Contract Transition Deliverable CTD0004, “Listing of Material Differences and Pre-Existing Conditions” to RL on January 22, 2021. Also contributing to the unfavorable VAC are the Reliability Projects (RPs) scope that was transferred from CLIN 7 to CLIN 4 per customer direction and scope pending future BCRs.

Impacts – Overruns will continue until MDs are resolved with DOE-RL. The spending forecast (EAC) will highlight the divergent data between the contract proposal and MDs until resolution is approved.

Corrective Action - HMIS will continue to work with RL on MDs. Process May BCRs to account for RFS, COVID-19, and CLINs 7/8 to CLIN 4 transfer of scope.

Negotiated Contract Changes:

The Negotiated Contract Cost for April 2021 is \$3,760.3M.

Changes in Estimated Cost of Authorized Unpriced Work:

The Authorized Unpriced Work (AUW) for April 2021 is \$83.3M based primarily on Material Differences (MDs).

Changes in Estimated Price:

The Estimated Price for April 2021 is \$4,103.9M. The Estimated Price includes the Most Likely Management Estimate at Completion (MEAC) of \$3,852.3M and fee totaling \$251.6M. The estimated fee includes assumed ~7% of Fee from CLINs 7&8 in the amount of ~\$39.9M. The fee is depended on Task Order (TO) negotiations, and will be updated as necessary when TOs are definitized.

Appendix B

Reliability Project Contract Performance Reports


Format 1 – Work Breakdown Structure

Format 3 – Baseline

Format 5 – Explanation and Problem Analysis

APPENDIX B

1.0 FORMAT 1, DD FORM 2734/1, WORK BREAKDOWN STRUCTURE

CONTRACT PERFORMANCE REPORT															
FORMAT 1 - WORK BREAKDOWN STRUCTURE										DOLLARS IN Thousands		FORM APPROVED OMB No. 0704-0188			
1. CONTRACTOR		2. CONTRACT		3. PROGRAM				4. REPORT PERIOD							
a. NAME Hanford Mission Integration Solutions		a. NAME Hanford Mission Essential Services Contract		a. NAME Hanford Mission Essential Services Contract				a. From 2021 / 03/ 22							
b. LOCATION (Address and Zip Code) Richland, WA 99352		b. NUMBER 89303320DEM000031		b. PHASE Operations				b. To 2021 / 04/25							
c. TYPE CPAF & IDIQ		d. SHARE RATIO N/A		c. EVMS ACCEPTANCE No X Yes											
5. CONTRACT DATA															
a. QUANTITY		b. NEGOTIATED COST		c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK		d. TARGET PROFIT/FEE		e. TARGET PRICE		f. ESTIMATED PRICE		g. CONTRACT CEILING			
N/A		\$359,813		\$27,797		\$25,187		\$385,000		\$413,346		385,000			
												413,346			
												N/A			
6. ESTIMATED COST AT COMPLETION															
				CONTRACT BUDGET BASE (2)		VARIANCE (3)		a. NAME (Last, First, Middle Initial) Wilkinson, Robert E				b. TITLE President & General Manager			
a. BEST CASE		\$387,630						c. SIGNATURE 				d. DATE SIGNED Digitally signed by ROBERT WILKINSON (Affiliate) Date: 2021.05.24 08:38:00 -07'00'			
b. WORST CASE		\$407,567						ROBERT WILKINSON (Affiliate)							
c. MOST LIKELY		\$388,159		387,630		(548)									
8. PERFORMANCE DATA															
Item (1)	Current Period						Cumulative to Date						At Completion		
	Budgeted Cost		Actual Cost		Variance		Budgeted Cost		Actual Cost		Variance		Budgeted (12)	Estimated (13)	Variance (14)
	Work Scheduled (2)	Work Performed (3)	Work Scheduled (4)	Work Performed (5)	Schedule (6)	Cost (7)	Work Scheduled (8)	Work Performed (9)	Schedule (10)	Cost (11)					
a. WORK BREAKDOWN STRUCTURE ELEMENT															
4001.07.01 - IRP - Water System	1,196	820	712	(376)	108	2,186	1,105	1,050	(1,081)	56	5,754	5,802	(48)		
4001.07.02 - IRP - Sewer System	41	22	6	(19)	16	85	48	35	(37)	13	133	95	38		
4001.07.03 - IRP - Electrical System	726	728	1,115	2	(387)	3,507	1,840	1,915	(1,667)	(75)	6,823	8,196	(1,373)		
4001.07.04 - IRP - Roads & Grounds	34	21	43	(13)	(22)	79	66	127	(34)	(61)	5,262	5,300	(38)		
4001.07.05 - IRP - Facility System	220	263	297	44	(34)	569	538	492	(31)	46	3,491	3,588	(97)		
4001.07.06 - IRP - Network & Telecom System	989	204	151	(786)	53	1,586	379	379	(1,207)	(0)	4,660	5,466	(807)		
CLIN 4 Subtotal	3,206	2,058	2,324	(1,148)	(266)	8,013	3,977	3,998	(4,037)	(22)	26,122	28,449	(2,327)		
4001.07.01 - IRP - Water System	882	346	558	(535)	(212)	2,055	2,113	2,340	58	(227)	15,097	15,987	(890)		
4001.07.03 - IRP - Electrical System	190	252	359	61	(107)	448	370	534	(77)	(163)	2,301	2,473	(172)		
4001.07.05 - IRP - Facility System	532	469	473	(63)	(4)	982	1,173	1,165	19	8	2,009	2,006	3		
4001.07.06 - IRP - Network & Telecom System	111	312	264	202	48	688	590	559	(98)	31	688	670	17		
4001.07.97 - IRP - Out-Year Summary Level Planning Package	0	0	0	0	0	0	0	0	0	0	341,394	338,574	2,820		
CLIN 7 Subtotal	1,715	1,379	1,654	(335)	(274)	4,173	4,246	4,597	73	(351)	361,488	359,710	1,778		
b. COST OF MONEY															
c. GENERAL AND ADMINISTRATIVE															
d. UNDISTRIBUTED BUDGET															
e. SUBTOTAL															
f. MANAGEMENT RESERVE															
g. TOTAL															
9. RECONCILIATION TO CONTRACT BUDGET BASE															
a. VARIANCE ADJUSTMENT															
b. TOTAL CONTRACT VARIANCE															
												387,630	388,159	(548)	

APPENDIX B

2.0 FORMAT 3, DD FORM 2734/3, BASELINE

CONTRACT PERFORMANCE REPORT FORMAT 3 - BASELINE																	
DOLLARS IN Thousands														FORM APPROVED OMB No. 0704-0188			
1. Contractor		2. Contract		3. Program		4. Report Period											
a. Name Hanford Mission Integration Solutions		a. Name Hanford Mission Essential Services Contract		a. Name Hanford Mission Essential Services		a. From (2021/03/22)											
b. Location (Address and Zip Code) Richland, WA 99352		b. Number 89303320DEM000031		b. Phase Operations		b. To (2021/04/25)											
		c. TYPE CPAF & IDIQ		d. Share Ratio N/A		c. EVMS ACCEPTANCE No <input checked="" type="checkbox"/> Yes											
5. CONTRACT DATA																	
a. ORIGINAL NEGOTIATED COST		b. NEGOTIATED CONTRACT CHANGES		c. CURRENT NEGOTIATED COST (a+b)		d. ESTIMATED COST OF UNAUTHORIZED UNPRICED WORK		e. CONTRACT BUDGET BASE (C+D)		f. TOTAL ALLOCATED BUDGET		g. DIFFERENCE (E - F)					
\$359,813		\$0		\$359,813		\$27,797		\$387,610		\$387,610		\$0					
h. CONTRACT START DATE		i. CONTRACT DEFINITIZATION DATE		j. PLANNED COMPLETION DATE		k. CONTRACT COMPLETION DATE		l. ESTIMATED COMPLETION DATE									
2020/8/17		2019/12/5		2030/8/16		2030/8/16		2030/8/16									
6. PERFORMANCE DATA																	
ITEM (1)	BCWS CUMULATIVE TO DATE (2)	BCWS FOR REPORT PERIOD (3)	BUDGETED COST FOR WORK SCHEDULED (BCWS) (Non-Cumulative)														
			Six Month Forecast By Month								Remaining Forecast By Month & Fiscal Year					UNDISTRIBUTED BUDGET (15)	TOTAL BUDGET (16)
			MAY FY21 (4)	JUN FY21 (5)	JUL FY21 (6)	AUG FY21 (7)	SEP FY21 (8)	OCT FY22 (9)	NOV FY22 (10)	Remaining FY22 (11)	BP FY23-25 (12)	OP1 FY25-28 (13)	OP2 FY28-30 (14)				
a. PERFORMANCE MEASUREMENT BASELINE (Beginning of Period)	7,265	4,657	5,774	6,219	6,316	5,937	8,409	1,608	807	46	0	0	338,690	0	385,728		
b. BASELINE CHANGES AUTHORIZED DURING REPORT PERIOD	4,921	(4,657)	(206)	(11)	89	(415)	(442)	18	(119)	(0)	0	0	2,704	0	1,882		
c. PERFORMANCE MEASUREMENT BASELINE (End of Period)	12,186	0	5,569	6,208	6,405	5,523	7,967	1,626	688	46	0	0	341,394	0	387,610		
7. MANAGEMENT RESERVE													0	0	0		
8. TOTAL	12,186	0	5,569	6,208	6,405	5,523	7,967	1,626	688	46	0	0	341,394	0	387,610		

1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Hanford Mission Integration Solutions, LLC	a. Name Hanford Mission Essential Services Contract(HMESC)	a. Name Hanford Mission Essential Services Contract(HMESC)	a. From (2021/03/22)
b. Location (Address and Zip Code) PO Box Richland, WA 99352	b. Number-89303320DEM00031	b. Phase - Operations	b. To (2021/04/25)
	c. Type CPAF,IDIQ	d. Share Ratio	
		c. EVMS Acceptance NO X YES	
Evaluation			

3.0 FORMAT 5, DD FORM 2734/5, EXPLANATIONS AND PROBLEM ANALYSIS

(\$K) - April	BCWS	BCWP	ACWP	SV \$	SV %	CV \$	CV %	SPI	CPI
Current:	\$ 4,921	\$ 3,437	\$ 3,978	\$ (1,484)	-30.2%	\$ (540)	-15.7%	0.70	0.86
Cumulative:	\$ 12,186	\$ 8,223	\$ 8,595	\$ (3,964)	-32.5%	\$ (373)	-4.5%	0.67	0.96
	BAC	EAC	VAC \$	VAC %	TCPI				
At Completion:	\$ 387,610	\$ 388,159	\$ (548)	-0.1%	1.00				
Includes CLIN 4 & CLIN 7									

Explanation of Variance /Description of Problem:

Current Month (CM) Cost Variance (CV):

The unfavorable CM CV is (-\$540K) or (15.7%) primarily driven by:

- L-789, Priority T&D Sys Wood PP Test & Replace construction contractor change orders. A baseline change request in underway to incorporate change order scope into the performance measurement baseline. (-\$513k)

Impacts – N/A.

Corrective Action – N/A.

Current Month (CM) Schedule Variance (SV):

The unfavorable CM SV is (-\$1,484K) or (30.2%) primarily driven by:

- L-897, Central Plateau Water Treatment Facility membrane procurement award being delayed. The first milestone payment was planned to occur in the current period. A BCR is in progress to re-plan this scope of work. (-\$1,126k)
- L-781, 181D Vertical Turbine Pumps schedule recovery in the current period for 30% design completion that was planned in a prior period (\$527k)
- L-895, Fire Protection Infrastructure for PRW A/E services subcontract delayed award which is impacting ongoing construction and procedure scope. The A/E services subcontract was not novated at transition from MSA to HMIS and a new procurement solicitation is underway. (-\$187k)
- L-921, Telecom Hut at Met Tower schedule recovery in the current period for telecom hut prep work and placement. Scope was planned in a prior period (\$77k)
- L-937, Gabe East Footprint Reduction (Phase 1) Engineering Change Request driving schedule impacts to RSC and Solar Array procurement and construction activities. ECR

1. Contractor	2. Contract	3. Program	4. Report Period
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b. Location (Address and Zip Code) PO Box Richland, WA 99352	b. Number-89303320DEM00031	b. Phase - Operations	b. To (2021/04/25)
	c. Type CPAF,IDIQ	d. Share Ratio	
		c. EVMS Acceptance NO X YES	
Evaluation			

forecasted to complete in May. Windcube procurement receipt expected in late May. (-\$698k)

Impacts - N/A.

Corrective Action – N/A.

Cumulative To Date (CTD) Cost Variance (CV):

The unfavorable CTD CV is within reporting variance.

Impacts – N/A.

Corrective Action – N/A.

Cumulative To Date (CTD) Schedule Variance (SV):

The unfavorable CTD SV is (-\$3.9M) or (32.5%) primarily driven by:

- **(-\$1,081K)** 4001.07.01 Water Systems - Project L-897 Central Plateau Water Treatment Facility, delays in the awarding the membrane and processing equipment fabrication/procurement subcontract due to having to go through the full procurement process. Project L-895 Fire Protection Infrastructure for PRW, delay in the awarding the A/E services subcontract due to having to go through the full procurement process.
- **(-\$1,667K)** 4001.07.03 Electrical Systems - Project L-789, Priority T&D Sys Wood PP Test & Replace, having low likelihood planning and unplanned cutovers as well as Titan crews being dispatched to support power outages in Oregon. In addition, the subcontractor is performing outstanding change order scope that has delayed the existing planned schedule.
- **(-\$1,207K)** 4001.07.06 Network and Telecom System - Project L-937 Gable East Footprint Reduction (Phase 1) continuing to recover from the pause at contract transition. The project team implemented the prior months' work scope, and did not perform the baseline work scheduled. Authorization to perform work was received on February 8th, two weeks after the HMIS contract had begun. The project has also experienced delays with RSC design tasks, with the Engineering Change Request (ECR) development taking longer to complete, and is holding up construction activities that were scheduled to start in March.

Impacts - N/A.

Corrective Action – N/A.

Variance at Completion (VAC):

The unfavorable VAC is primarily driven by:

- **(-\$1,375K)** 4001.07.03 Electrical Systems - Project L-789, Priority T&D Sys Wood PP Test & Replace construction subcontractor change orders that were not captured in the baseline.

1. Contractor	2. Contract	3. Program	4. Report Period
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b. Location (Address and Zip Code) PO Box Richland, WA 99352	b. Number-89303320DEM00031	b. Phase - Operations	b. To (2021/04/25)
	c. Type CPAF,IDIQ	d. Share Ratio	
		c. EVMS Acceptance NO X YES	
Evaluation			

Impacts – N/A.

Corrective Action – N/A.

Negotiated Contract Changes:

The Negotiated Contract Cost for April 2021 is \$359.8M

Changes in Estimated Cost of Authorized Unpriced Work:

The Authorized Unpriced Work (AUW) for April 2021 is \$27.8M based on CLIN 7 scope transferred to CLIN 4 base on customer direction.

Changes in Estimated Price:

The Estimated Price for April 2021 is \$413.3M. The Estimated Price includes the Most Likely Management Estimate at Completion (MEAC) of \$388.2M and fee totaling \$25.2M. The estimated fee includes assumed ~7% of Fee from CLIN 7 in the amount of \$25.2M. The fee is depended on Task Order (TO) negotiations, and will be updated as necessary when TOs are definitized.

Changes in Undistributed Budget:

The UB for this reporting period is \$0M.

Changes in Management Reserve:

The Management Reserve (MR) for this reporting period is \$0M.

Differences in the Baseline:

This reporting period the Baseline began at \$385.7M and increased to \$387.6M.

The following BCRs were implemented as part of the HMESC transition:

- BCR-HMS-21-016 – Aligning Reliability Projects to Vendor Subcontract Submittals.
- BCR-HMS-21-017– Implement L-612 Condition Assessment.
- BCR-HMS-21-018 - Change Project Type for L-888 and L-897 and Incorporate Transformer Procurement into PMB.
- BCR-HMS-21-019 - Update Program Log for Contract Modification P00058 and TAMP and Adjust RP OY Planning Package / CLIN 4 UB.

1. Contractor	2. Contract		3. Program	4. Report Period
a. Name Hanford Mission Integration Solutions, LLC	a. Name Hanford Mission Essential Services Contract(HMESC)		a. Name Hanford Mission Essential Services Contract(HMESC)	a. From (2021/03/22)
b. Location (Address and Zip Code) PO Box Richland, WA 99352	b. Number-89303320DEM00031		b. Phase - Operations	b. To (2021/04/25)
	c. Type CPAF,IDIQ	d. Share Ratio	c. EVMS Acceptance NO X YES	
Evaluation				

Best/Worst/Most Likely Management Estimate at Completion (MEAC):

The Best Case MEAC assumes the completion of the approved work scope at the current negotiated contract value consistent with the Contract Budget Base \$387.6M. The Most Likely MEAC reflects the EAC including MR \$388.2M. The Worst Case Scenario assumes a 5 percent increase to the Most Likely MEAC case scenario \$407.6M.